Fig.1

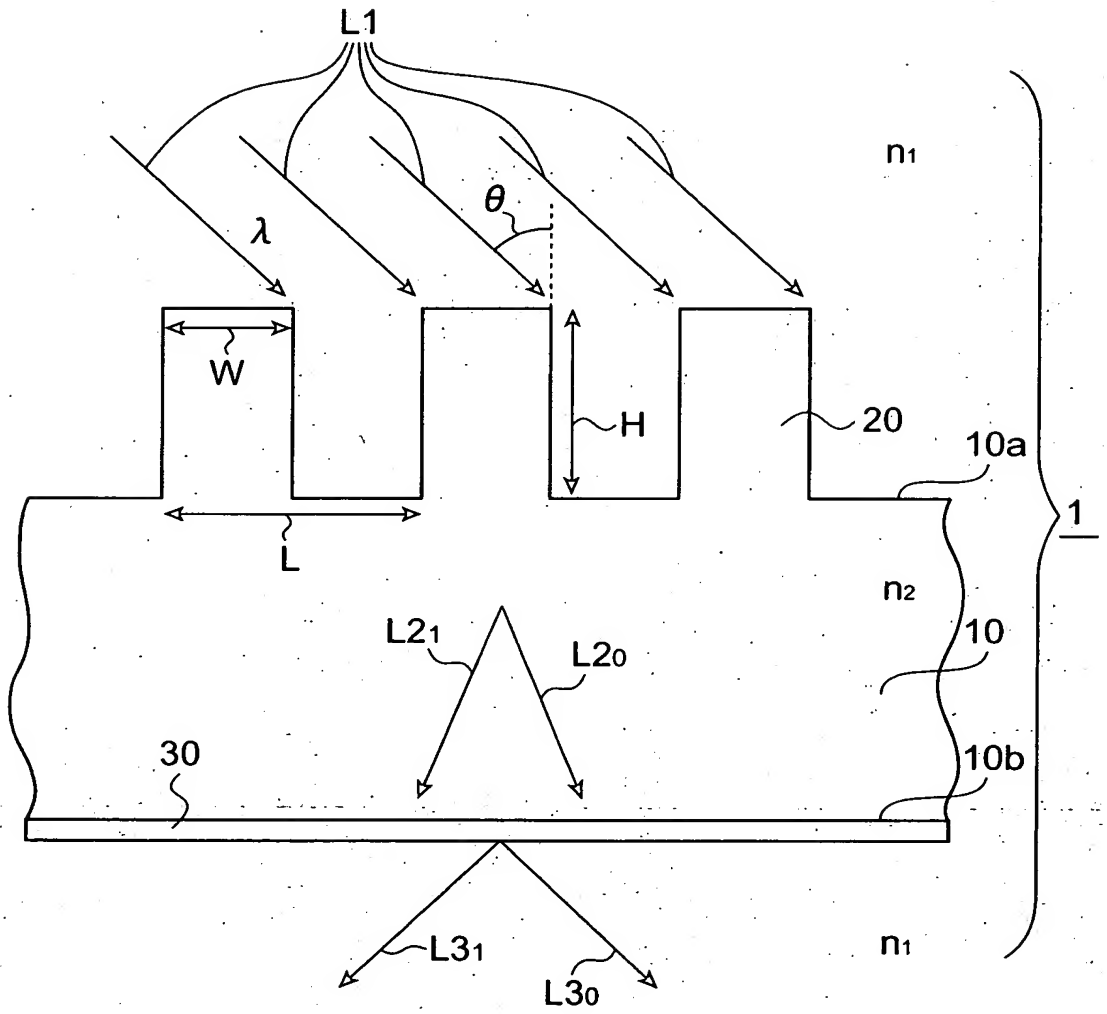

Fig.2A

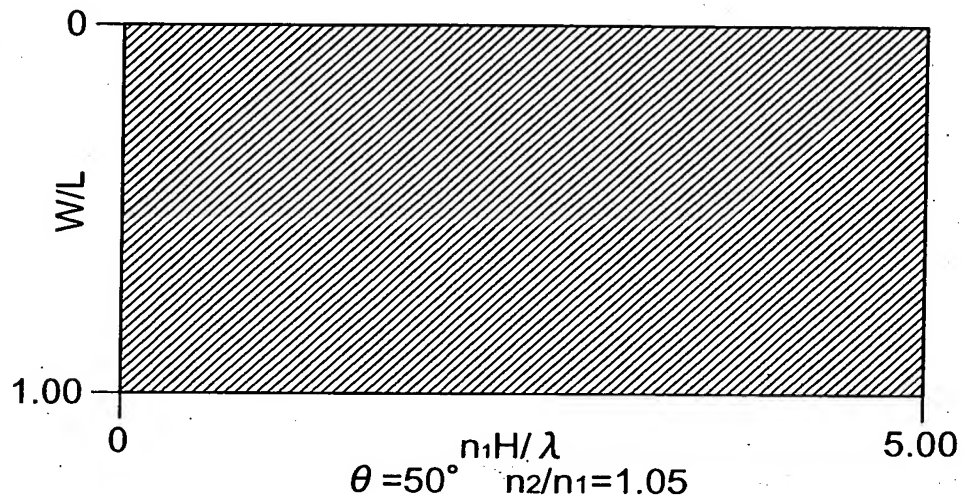

Fig.2B

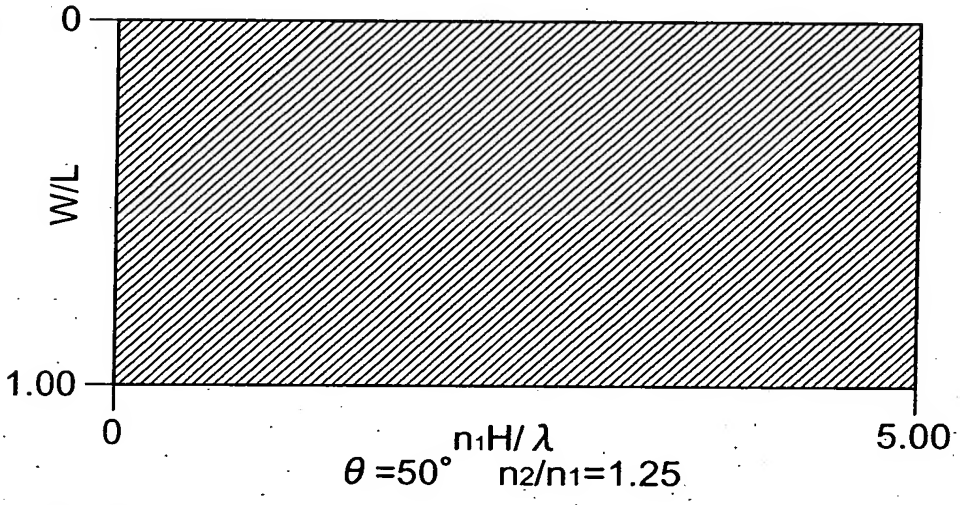

Fig.2C

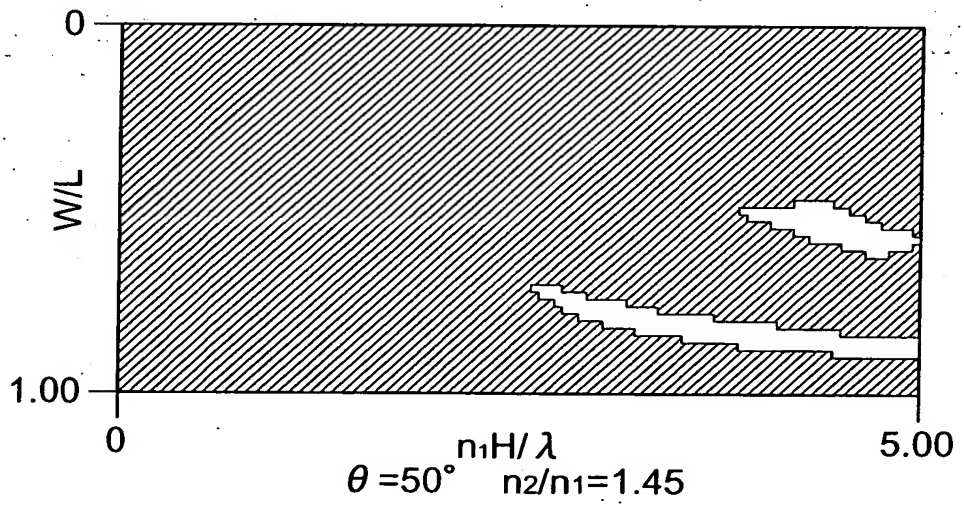

Fig.3A

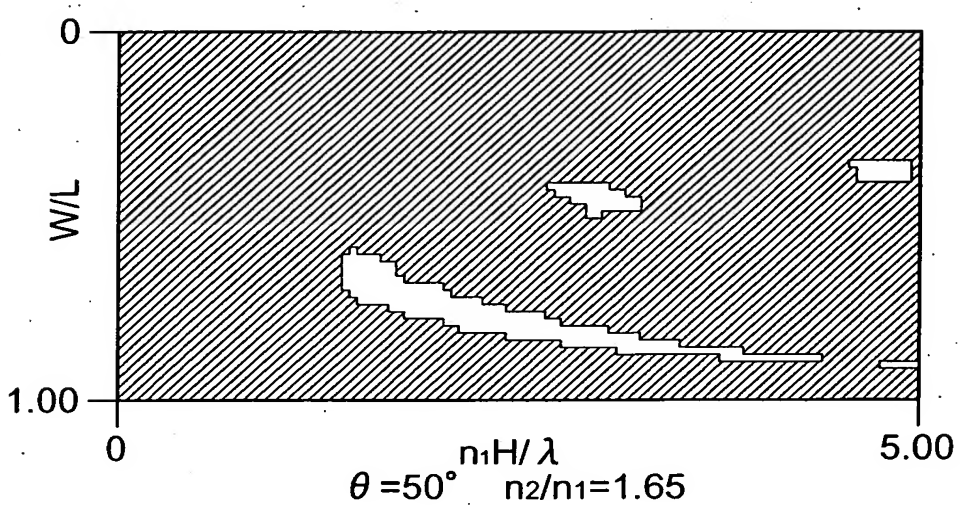

Fig.3B

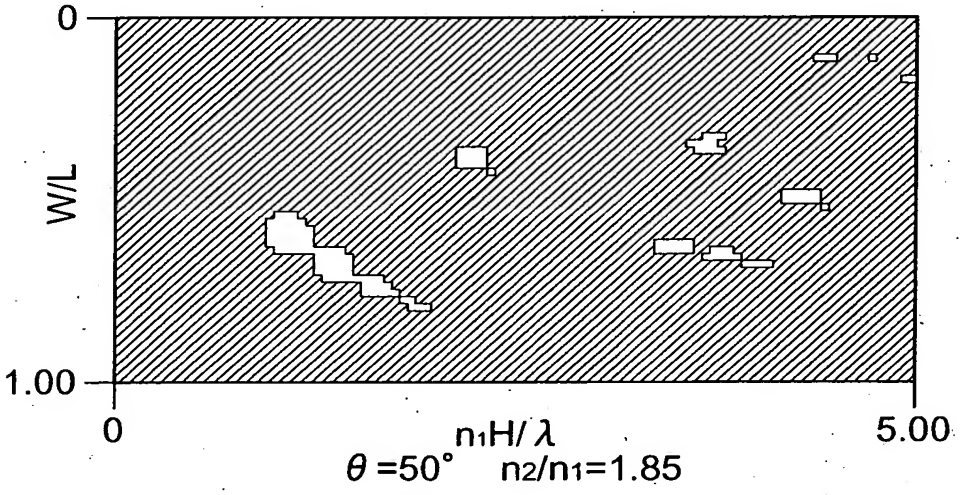

Fig.3C

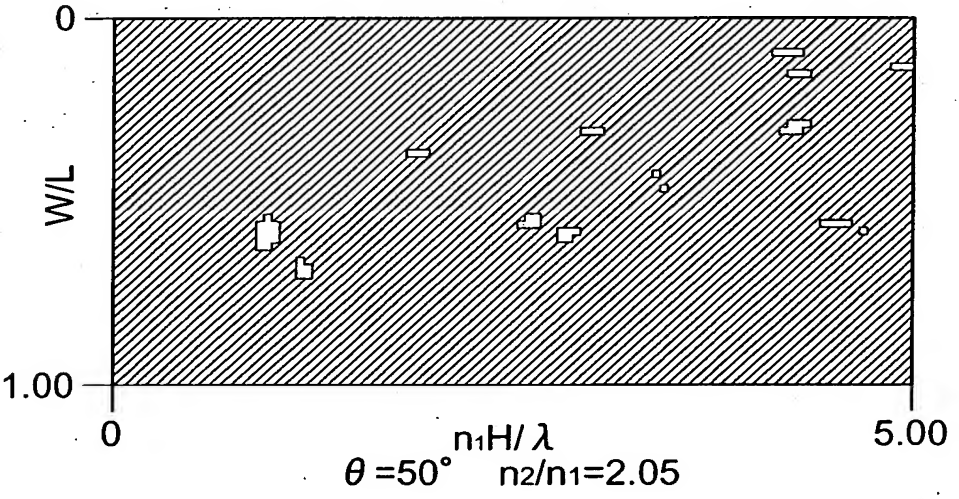

Fig.4

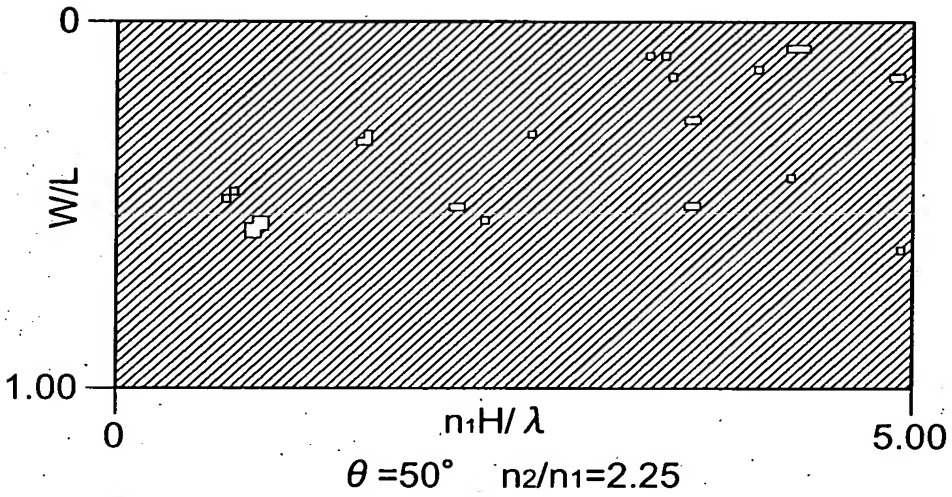

Fig.5A

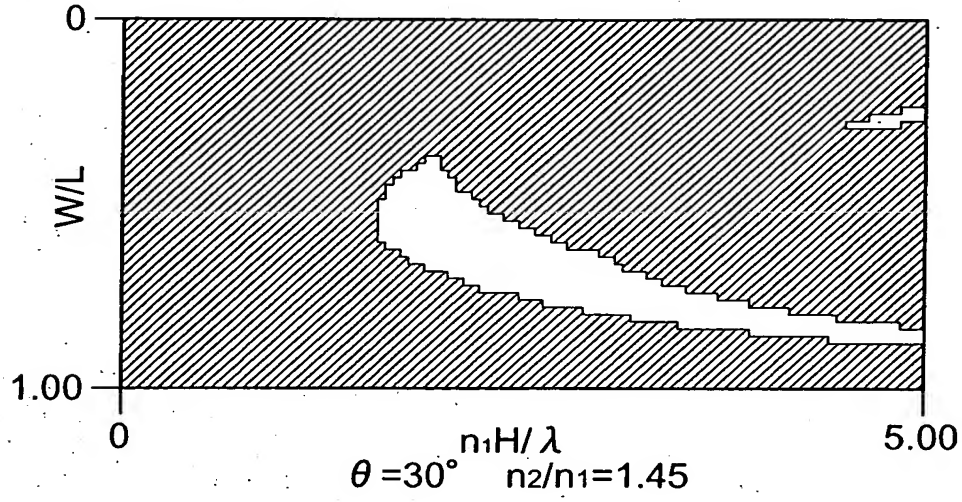

Fig.5B

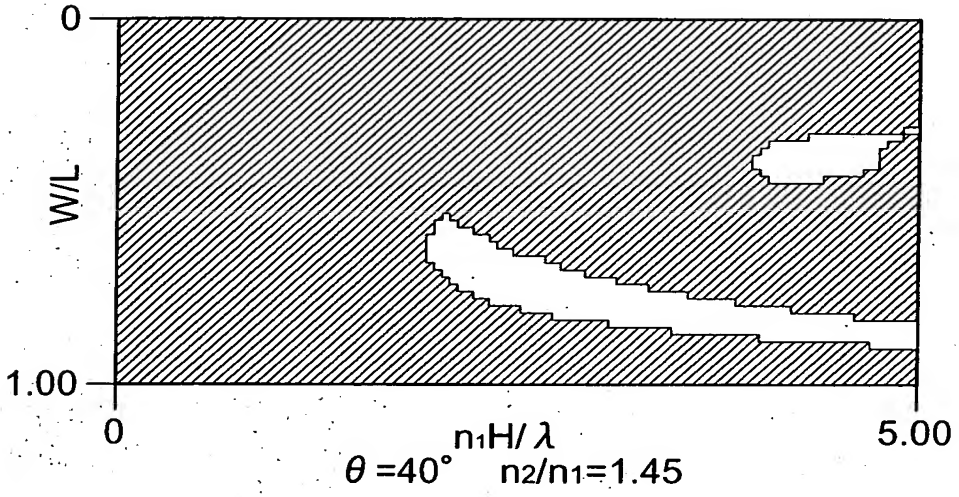

Fig.5C

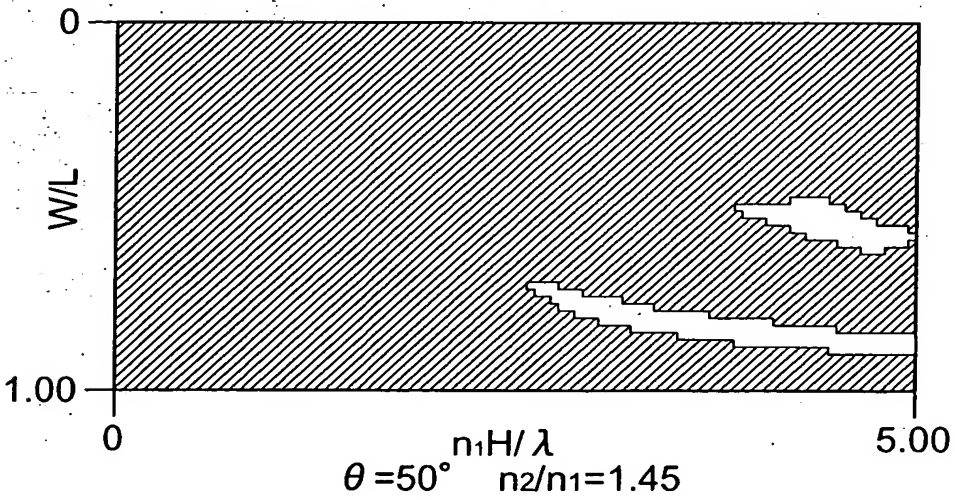

Fig.6A

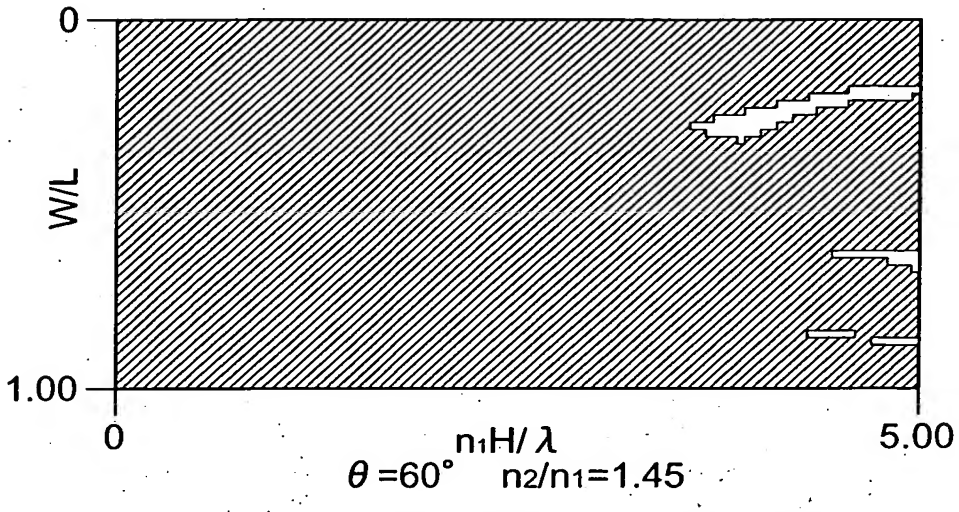

Fig.6B

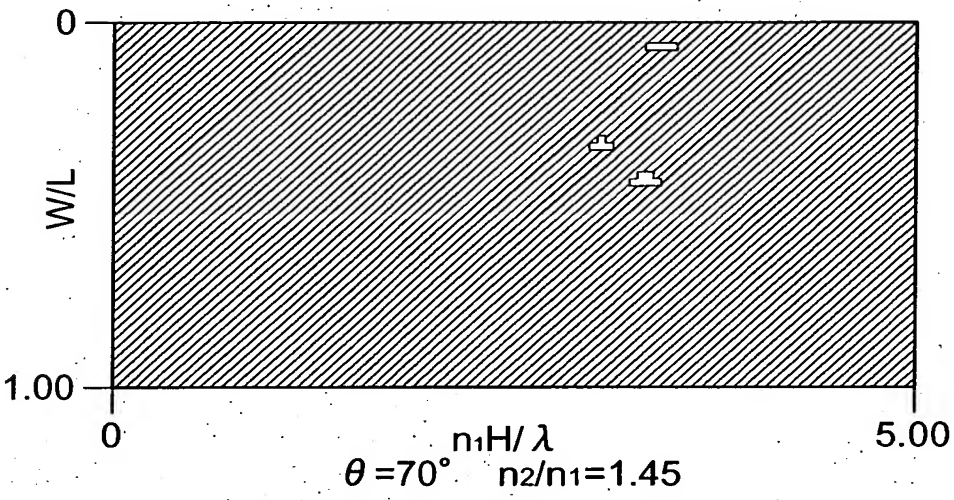

Fig.6C

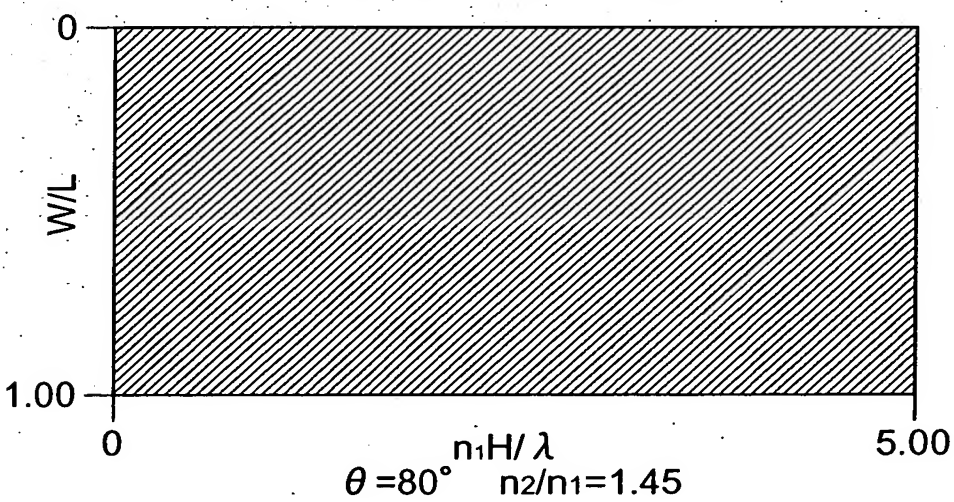

Fig.7

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η TE	η TM
1	25	1.150	5.000	0.520	0.997	0.826
2	25	1.200	4.800	0.620	0.973	0.974
3	25	1.250	4.500	0.700	0.992	0.990
4	30	1.200	5.000	0.640	0.924	0.929
5	30	1.250	4.700	0.720	0.973	0.973
6	30	1.300	4.400	0.760	0.985	0.989
7	30	1.350	3.400	0.720	0.983	0.988
8	30	1.400	2.550	0.640	0.980	0.983
9	30	1.450	2.400	0.660	0.976	0.982
10	30	1.500	1.950	0.600	0.974	0.977
11	35	1.200	4.950	0.620	0.815	0.811
12	35	1.250	5.000	0.740	0.923	0.929
13	35	1.300	5.000	0.800	0.974	0.973
14	35	1.350	4.300	0.800	0.976	0.987
15	35	1.400	2.950	0.720	0.973	0.979
16	35	1.450	2.450	0.700	0.971	0.975
17	35	1.500	2.000	0.640	0.969	0.970
18	35	1.550	1.950	0.660	0.962	0.978
19	35	1.600	1.550	0.580	0.964	0.962
20	35	1.650	1.500	0.580	0.959	0.969
21	35	1.700	1.450	0.580	0.952	0.955
22	40	1.250	4.850	0.720	0.816	0.815
23	40	1.300	4.750	0.780	0.922	0.916
24	40	1.350	4.950	0.840	0.962	0.957
25	40	1.400	3.450	0.780	0.964	0.967
26	40	1.450	4.450	0.380	0.965	0.984
27	40	1.500	3.950	0.360	0.962	0.979
28	40	1.550	1.950	0.680	0.953	0.971
29	40	1.600	3.300	0.340	0.952	0.977
30	40	1.650	1.500	0.620	0.949	0.962
31	40	1.700	1.450	0.620	0.943	0.970
32	40	1.750	3.950	0.600	0.940	0.957
33	40	1.800	1.350	0.620	0.930	0.934
34	40	1.850	1.050	0.520	0.935	0.939
35	40	1.900	1.000	0.520	0.929	0.949
36	45	1.300	4.900	0.780	0.816	0.822
37	45	1.350	4.750	0.820	0.910	0.912
38	45	1.400	5.000	0.500	0.960	0.977
39	45	1.450	4.400	0.480	0.964	0.965
40	45	1.500	3.900	0.440	0.960	0.987
41	45	1.550	2.050	0.720	0.938	0.940
42	45	1.600	3.250	0.420	0.952	0.967
43	45	1.650	1.550	0.660	0.935	0.939

Fig.8

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η TE	η TM
44	45	1.700	2.750	0.360	0.937	0.937
45	45	1.750	4.850	0.480	0.940	0.942
46	45	1.800	4.100	0.300	0.919	0.927
47	45	1.850	1.050	0.560	0.922	0.922
48	45	1.900	1.050	0.560	0.912	0.945
49	45	1.950	1.000	0.560	0.910	0.954
50	45	2.000	4.650	0.360	0.905	0.951
51	45	2.050	2.600	0.520	0.901	0.912
52	45	2.100	0.900	0.540	0.889	0.924
53	50	1.350	4.900	0.820	0.829	0.825
54	50	1.400	5.000	0.560	0.940	0.983
55	50	1.450	4.450	0.540	0.958	0.996
56	50	1.500	3.900	0.500	0.953	0.986
57	50	1.550	3.400	0.460	0.945	0.920
58	50	1.600	3.250	0.480	0.943	0.978
59	50	1.650	4.800	0.380	0.922	0.941
60	50	1.700	2.750	0.420	0.930	0.970
61	50	1.750	2.600	0.440	0.926	0.925
62	50	1.800	4.700	0.520	0.921	0.910
63	50	1.850	1.100	0.580	0.896	0.898
64	50	1.900	2.150	0.360	0.902	0.913
65	50	1.950	2.050	0.380	0.903	0.952
66	50	2.000	3.650	0.460	0.900	0.886
67	50	2.050	0.950	0.580	0.874	0.960
68	50	2.100	4.150	0.540	0.877	0.905
69	50	2.150	3.150	0.420	0.886	0.886
70	50	2.200	3.000	0.420	0.857	0.873
71	50	2.250	3.600	0.500	0.853	0.920
72	55	1.400	5.000	0.620	0.854	0.866
73	55	1.450	4.950	0.620	0.935	0.997
74	55	1.500	4.350	0.600	0.938	0.970
75	55	1.550	3.800	0.560	0.933	0.984
76	55	1.600	3.300	0.520	0.930	0.990
77	55	1.650	3.150	0.520	0.923	0.942
78	55	1.700	2.750	0.460	0.920	0.947
79	55	1.750	2.600	0.480	0.906	0.959
80	55	1.800	3.900	0.120	0.888	0.977
81	55	1.850	3.600	0.380	0.893	0.903
82	55	1.900	2.100	0.400	0.889	0.920
83	55	1.950	2.050	0.420	0.884	0.950
84	55	2.000	3.700	0.480	0.875	0.881
85	55	2.050	3.550	0.480	0.868	0.918

Fig.9

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η TE	η TM
86	55	2.100	2.850	0.340	0.867	0.885
87	55	2.150	4.700	0.480	0.863	0.896
88	55	2.200	3.050	0.440	0.852	0.929
89	55	2.250	1.500	0.340	0.843	0.892
90	55	2.300	1.450	0.340	0.837	0.894
91	55	2.350	1.450	0.340	0.839	0.899
92	55	2.400	2.550	0.400	0.845	0.922
93	55	2.450	2.500	0.400	0.839	0.872
94	60	1.300	5.000	0.340	0.909	0.918
95	60	1.350	5.000	0.280	0.916	0.995
96	60	1.400	4.250	0.280	0.932	0.954
97	60	1.450	4.350	0.220	0.924	0.982
98	60	1.500	4.450	0.180	0.912	0.930
99	60	1.550	3.850	0.600	0.909	0.988
100	60	1.600	3.650	0.600	0.902	0.927
101	60	1.650	3.200	0.560	0.897	0.983
102	60	1.700	2.750	0.500	0.902	0.916
103	60	1.750	2.650	0.500	0.893	0.993
104	60	1.800	2.550	0.500	0.880	0.925
105	60	1.850	3.600	0.420	0.879	0.889
106	60	1.900	2.100	0.440	0.876	0.949
107	60	1.950	2.050	0.440	0.875	0.973
108	60	2.000	2.000	0.440	0.864	0.907
109	60	2.050	2.900	0.380	0.829	0.851
110	60	2.100	3.500	0.500	0.832	0.866
111	60	2.150	4.100	0.420	0.847	0.971
112	60	2.200	4.000	0.420	0.827	0.833
113	60	2.250	1.500	0.360	0.833	0.856
114	60	2.300	1.500	0.360	0.822	0.926
115	60	2.350	1.450	0.360	0.825	0.894
116	60	2.400	4.200	0.360	0.826	0.846
117	60	2.450	2.500	0.420	0.812	0.932
118	65	1.150	5.000	0.200	0.823	0.811
119	65	1.200	4.950	0.140	0.828	0.825
120	65	1.250	5.000	0.100	0.867	0.807
121	65	1.300	4.650	0.380	0.936	0.936
122	65	1.350	4.200	0.420	0.920	0.923
123	65	1.400	3.800	0.300	0.904	0.909
124	65	1.450	3.400	0.360	0.905	0.919
125	65	1.500	4.500	0.660	0.876	0.872
126	65	1.550	3.900	0.620	0.876	0.884
127	65	1.600	3.750	0.620	0.859	0.986
128	65	1.650	4.150	0.340	0.870	0.905

Fig.10

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η TE	η TM
129	65	1.700	3.100	0.580	0.853	0.925
130	65	1.750	2.650	0.540	0.840	0.986
131	65	1.800	4.900	0.320	0.846	0.909
132	65	1.850	5.000	0.440	0.859	0.898
133	65	1.900	2.150	0.460	0.842	0.893
134	65	1.950	4.450	0.400	0.833	0.938
135	65	2.000	2.000	0.460	0.829	0.918
136	65	2.050	2.900	0.400	0.828	0.825
137	65	2.100	2.800	0.400	0.812	0.857
138	65	2.150	4.100	0.440	0.816	0.922
139	65	2.200	4.000	0.440	0.803	0.888
140	65	2.250	1.500	0.380	0.805	0.832
141	65	2.400	4.200	0.380	0.800	0.839
142	70	1.100	4.900	0.260	0.894	0.896
143	70	1.150	4.700	0.160	0.889	0.888
144	70	1.200	5.000	0.100	0.898	0.878
145	70	1.250	4.900	0.080	0.875	0.882
146	70	1.300	4.500	0.500	0.918	0.937
147	70	1.350	3.750	0.420	0.890	0.905
148	70	1.400	3.500	0.440	0.897	0.927
149	70	1.450	3.350	0.440	0.853	0.861
150	70	1.500	5.000	0.440	0.864	0.924
151	70	1.550	2.700	0.340	0.856	0.954
152	70	1.600	4.250	0.400	0.848	0.910
153	70	1.650	3.250	0.600	0.803	0.904
154	70	1.700	4.350	0.520	0.811	0.824
155	70	1.750	3.500	0.340	0.806	0.872
156	70	1.800	3.350	0.340	0.818	0.811
157	75	1.050	5.000	0.420	0.957	0.847
158	75	1.100	4.750	0.180	0.927	0.922
159	75	1.150	4.500	0.120	0.896	0.897
160	75	1.200	4.650	0.080	0.874	0.884
161	75	1.250	2.800	0.120	0.861	0.853
162	75	1.300	4.550	0.560	0.862	0.876
163	75	1.350	4.200	0.560	0.851	0.853
164	75	1.400	3.500	0.500	0.845	0.874
165	75	1.450	2.900	0.400	0.820	0.816
166	75	1.500	2.800	0.400	0.831	0.856
167	75	1.550	2.650	0.400	0.812	0.888
168	80	1.050	5.000	0.580	0.931	0.925
169	80	1.100	4.200	0.140	0.888	0.888
170	80	1.150	4.400	0.080	0.838	0.863

Fig.11A

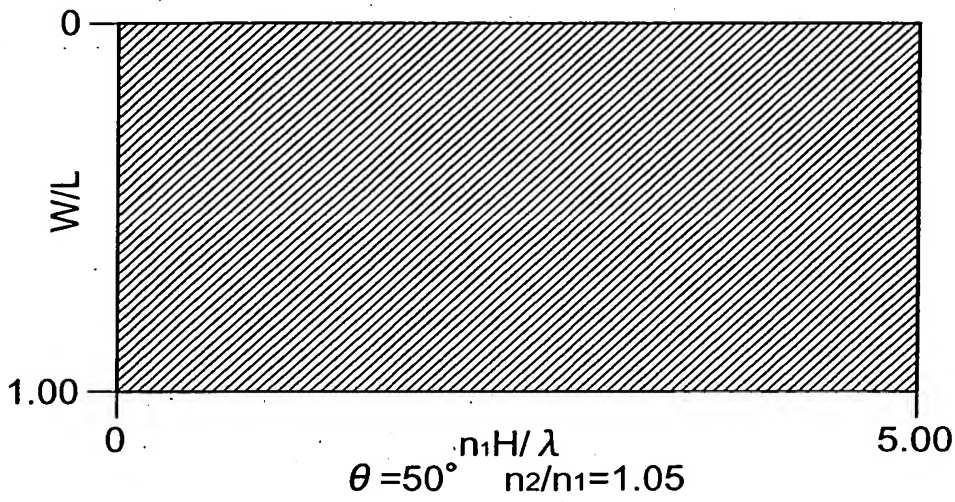

Fig.11B

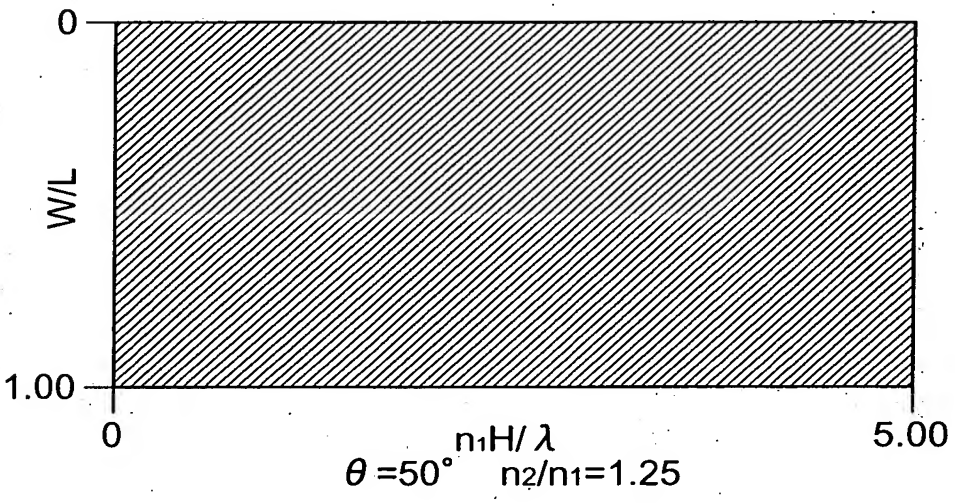

Fig.11C

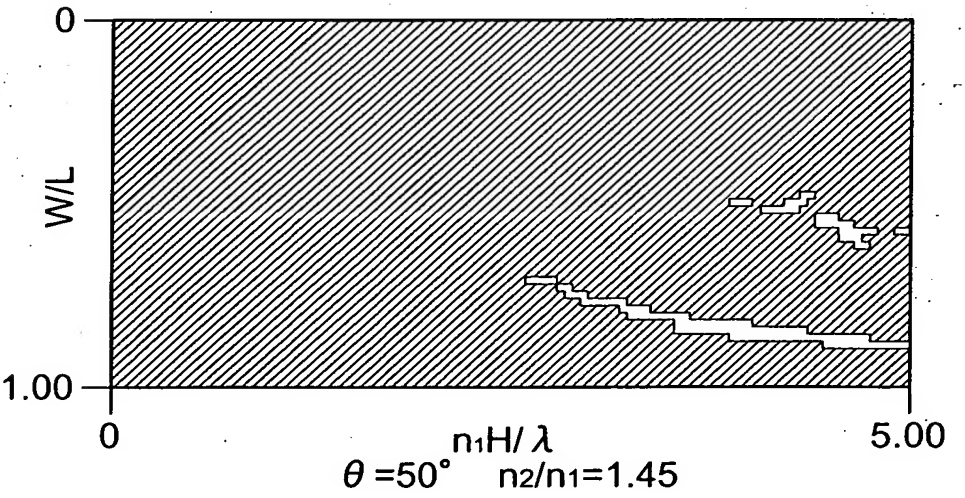

Fig.12A

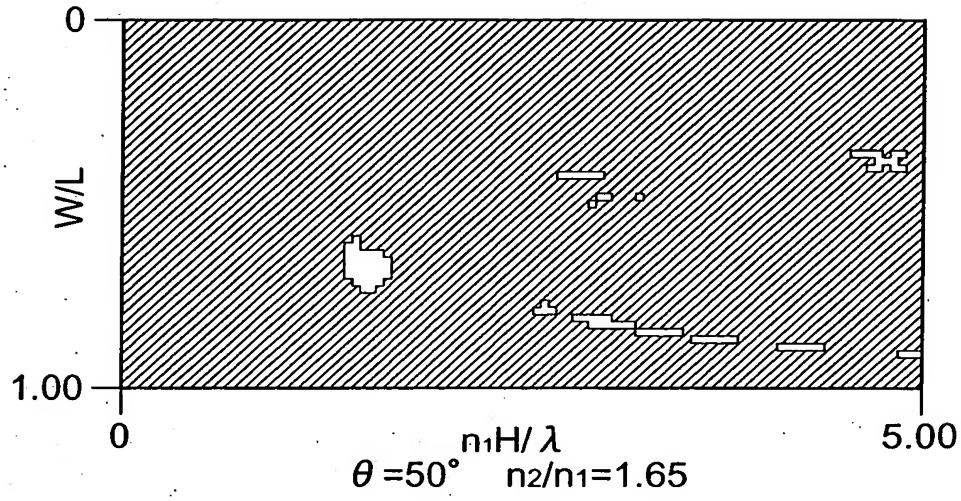

Fig.12B

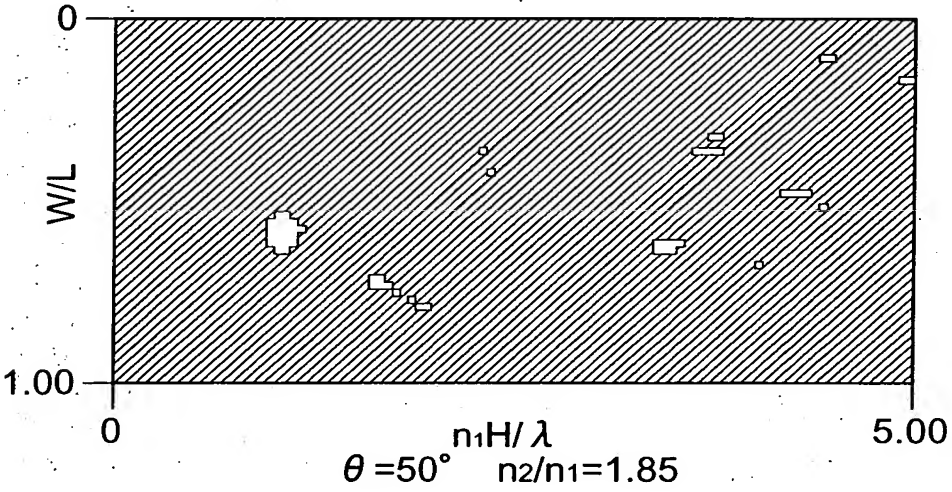

Fig.12C

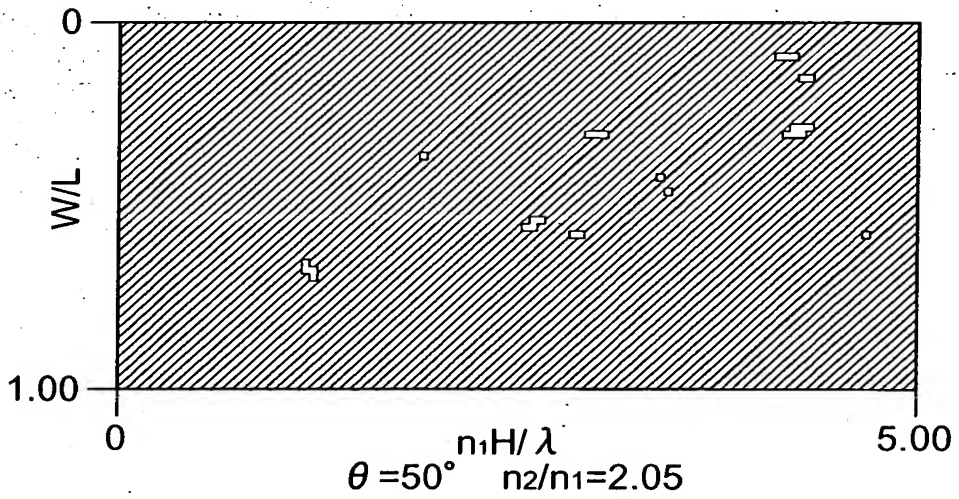

Fig.13

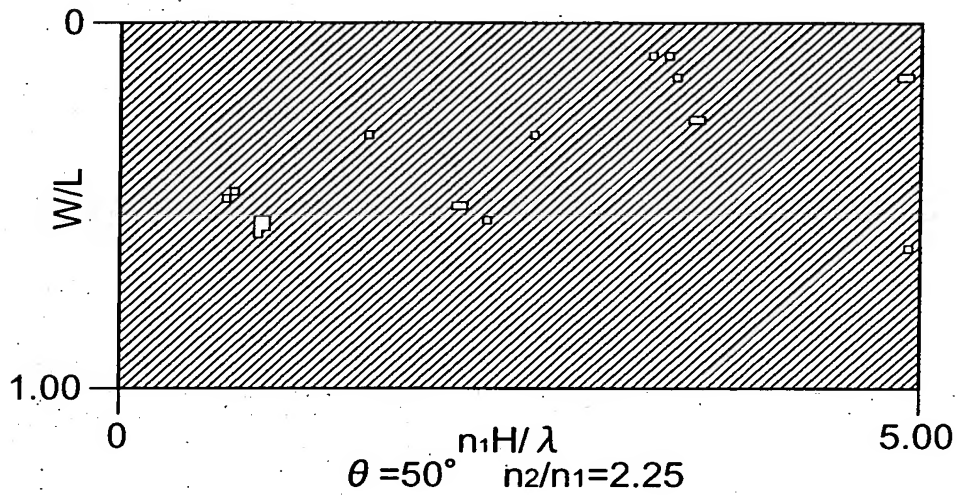

Fig.14A

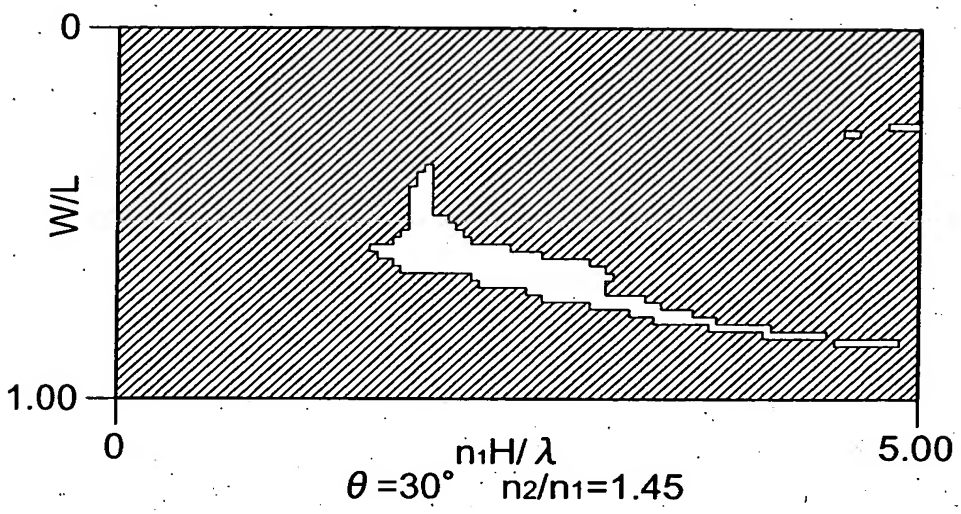

Fig.14B

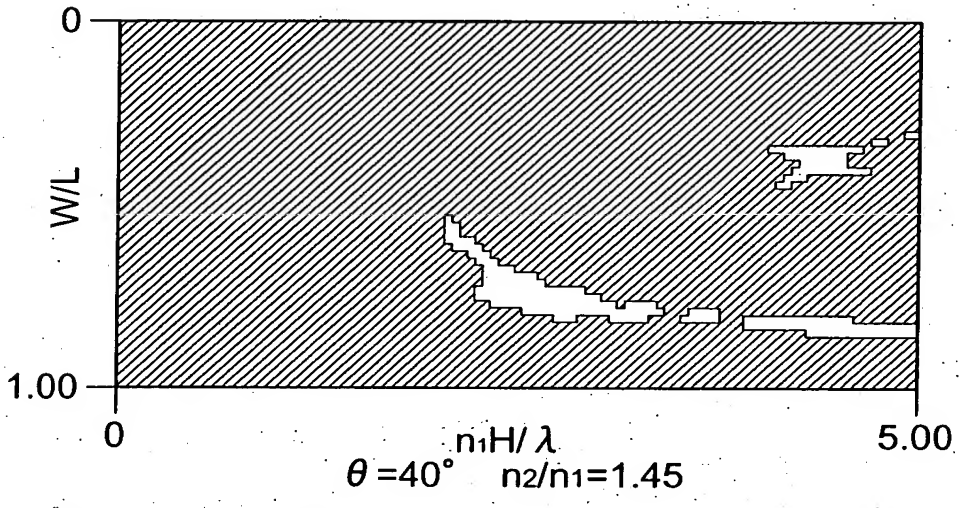

Fig.14C

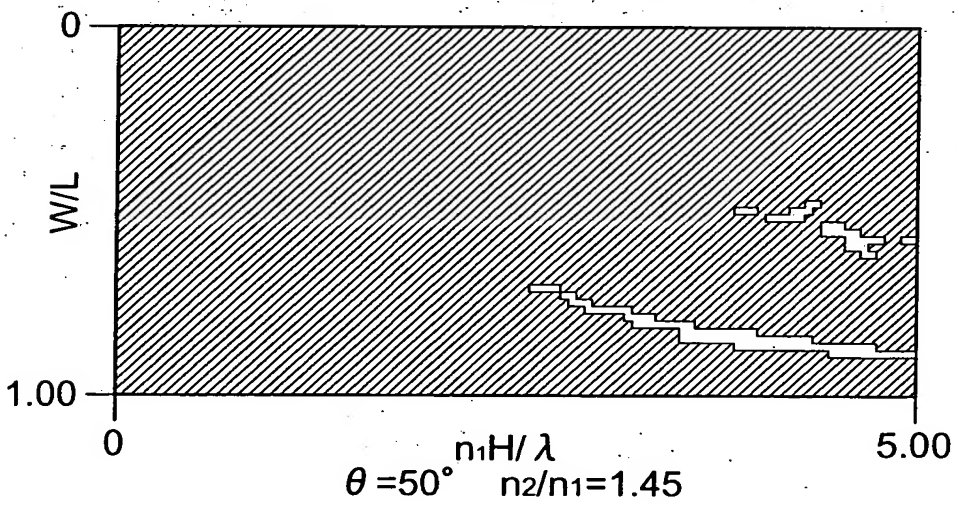

Fig.15A

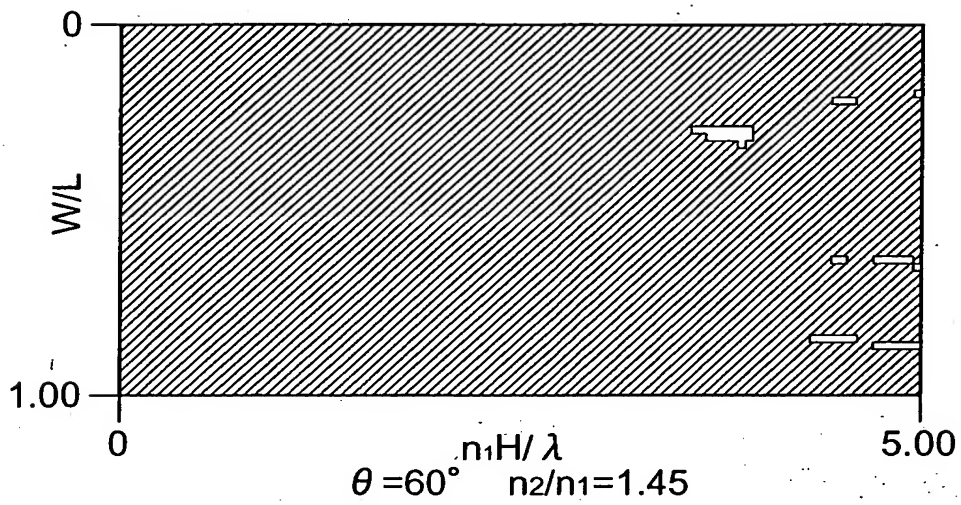

Fig.15B

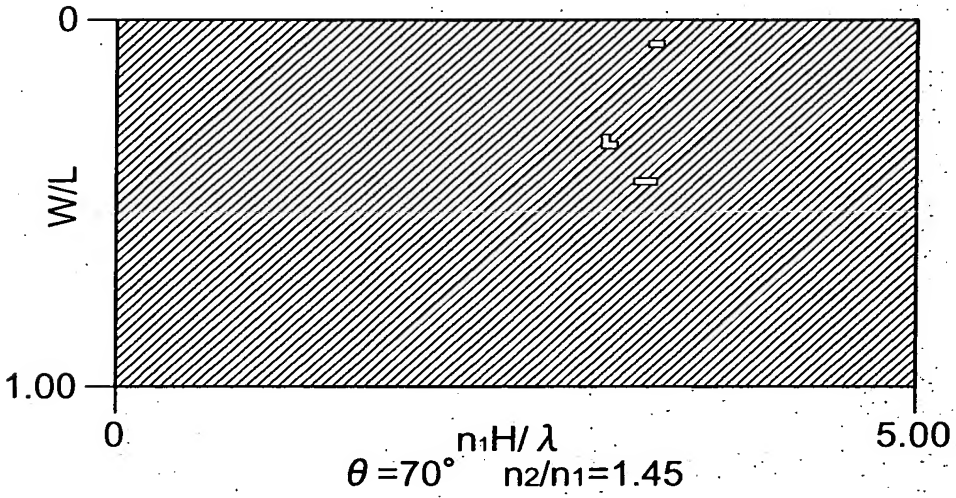

Fig.15C

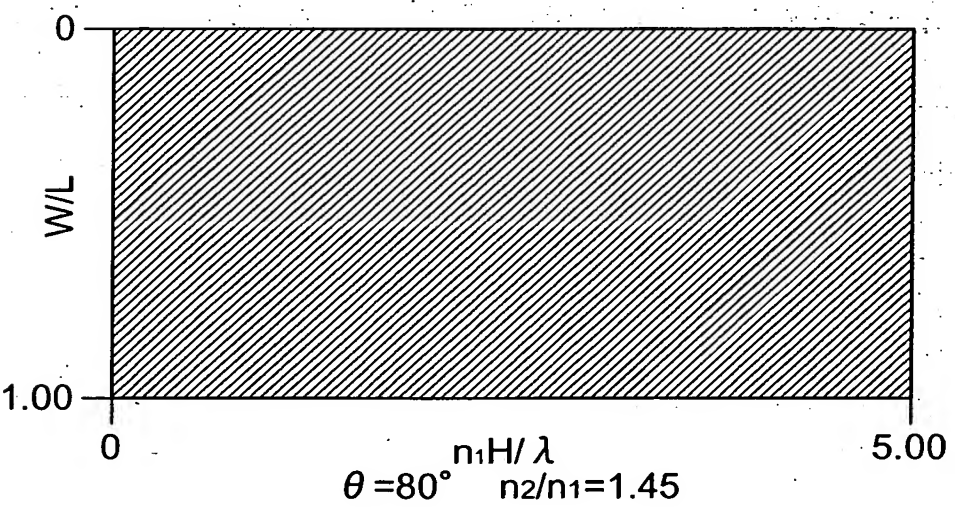

Fig.16

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η TE	η TM
1	25	1.200	4.800	0.620	0.973	0.974
2	25	1.250	4.500	0.700	0.992	0.990
3	30	1.200	5.000	0.640	0.924	0.929
4	30	1.250	4.700	0.720	0.973	0.973
5	30	1.300	4.400	0.760	0.985	0.989
6	30	1.350	3.400	0.720	0.983	0.988
7	30	1.400	2.550	0.640	0.980	0.983
8	30	1.450	2.400	0.660	0.976	0.982
9	30	1.500	1.950	0.600	0.974	0.977
10	35	1.200	4.950	0.620	0.815	0.811
11	35	1.250	5.000	0.740	0.923	0.929
12	35	1.300	5.000	0.800	0.974	0.973
13	35	1.350	3.900	0.780	0.978	0.976
14	35	1.400	2.950	0.720	0.973	0.979
15	35	1.450	2.450	0.700	0.971	0.975
16	35	1.500	2.000	0.640	0.969	0.970
17	35	1.550	3.800	0.300	0.960	0.964
18	35	1.600	1.550	0.580	0.964	0.962
19	35	1.650	1.500	0.580	0.959	0.969
20	35	1.700	1.450	0.580	0.952	0.955
21	40	1.250	4.850	0.720	0.816	0.815
22	40	1.300	4.750	0.780	0.922	0.916
23	40	1.350	4.950	0.840	0.962	0.957
24	40	1.400	3.450	0.780	0.964	0.967
25	40	1.450	4.350	0.400	0.963	0.959
26	40	1.500	3.900	0.380	0.959	0.970
27	40	1.550	1.950	0.700	0.949	0.963
28	40	1.600	3.300	0.360	0.945	0.956
29	40	1.650	1.500	0.620	0.949	0.962
30	40	1.700	1.750	0.700	0.932	0.937
31	40	1.750	2.700	0.300	0.936	0.932
32	40	1.800	1.350	0.620	0.930	0.934
33	40	1.850	1.050	0.520	0.935	0.939
34	40	1.900	1.000	0.520	0.929	0.949
35	45	1.300	4.900	0.780	0.816	0.822
36	45	1.350	4.750	0.820	0.910	0.912
37	45	1.400	4.900	0.520	0.952	0.958
38	45	1.450	4.400	0.480	0.964	0.965
39	45	1.500	3.900	0.460	0.956	0.958
40	45	1.550	2.050	0.720	0.938	0.940
41	45	1.600	3.250	0.420	0.952	0.967
42	45	1.650	1.550	0.660	0.935	0.939
43	45	1.700	2.750	0.360	0.937	0.937

Fig.17

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η TE	η TM
44	45	1.750	4.850	0.480	0.940	0.942
45	45	1.800	4.100	0.300	0.919	0.927
46	45	1.850	1.050	0.560	0.922	0.922
47	45	1.900	3.350	0.600	0.909	0.911
48	45	1.950	3.000	0.560	0.909	0.928
49	45	2.000	2.900	0.560	0.902	0.896
50	45	2.050	2.600	0.520	0.901	0.912
51	45	2.100	2.500	0.520	0.888	0.906
52	50	1.350	4.900	0.820	0.829	0.825
53	50	1.400	5.000	0.860	0.918	0.917
54	50	1.450	3.850	0.840	0.926	0.935
55	50	1.500	2.900	0.800	0.922	0.941
56	50	1.550	3.350	0.460	0.925	0.920
57	50	1.600	1.950	0.740	0.915	0.938
58	50	1.650	4.800	0.380	0.922	0.941
59	50	1.700	2.750	0.400	0.918	0.899
60	50	1.750	2.600	0.440	0.926	0.925
61	50	1.800	4.700	0.520	0.921	0.910
62	50	1.850	1.100	0.580	0.896	0.898
63	50	1.900	2.150	0.360	0.902	0.913
64	50	1.950	3.800	0.460	0.888	0.902
65	50	2.000	3.650	0.460	0.900	0.886
66	50	2.050	4.300	0.280	0.870	0.883
67	50	2.100	4.150	0.540	0.877	0.905
68	50	2.150	3.150	0.420	0.886	0.886
69	50	2.200	3.000	0.420	0.857	0.873
70	50	2.250	4.950	0.140	0.845	0.871
71	55	1.400	5.000	0.620	0.854	0.866
72	55	1.450	4.550	0.580	0.941	0.922
73	55	1.500	3.950	0.560	0.936	0.950
74	55	1.550	3.400	0.520	0.910	0.891
75	55	1.600	5.000	0.440	0.929	0.928
76	55	1.650	3.150	0.520	0.923	0.942
77	55	1.700	2.750	0.460	0.920	0.947
78	55	1.750	4.550	0.220	0.880	0.878
79	55	1.800	4.750	0.540	0.877	0.872
80	55	1.850	3.600	0.380	0.893	0.903
81	55	1.900	4.200	0.520	0.882	0.901
82	55	1.950	4.000	0.520	0.865	0.863
83	55	2.000	3.700	0.480	0.875	0.881
84	55	2.050	3.600	0.480	0.865	0.866
85	55	2.100	2.850	0.340	0.867	0.885

Fig.18

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η TE	η TM
86	55	2.150	4.700	0.480	0.863	0.896
87	55	2.200	4.900	0.360	0.845	0.856
88	55	2.250	2.950	0.440	0.838	0.835
89	55	2.300	3.600	0.360	0.826	0.848
90	55	2.350	4.300	0.340	0.828	0.859
91	55	2.400	1.400	0.340	0.841	0.837
92	55	2.450	2.500	0.400	0.839	0.872
93	60	1.300	5.000	0.340	0.909	0.918
94	60	1.350	4.700	0.340	0.883	0.885
95	60	1.400	4.200	0.300	0.931	0.917
96	60	1.450	3.900	0.300	0.875	0.869
97	60	1.500	4.450	0.180	0.912	0.930
98	60	1.550	4.400	0.160	0.906	0.902
99	60	1.600	3.650	0.600	0.902	0.927
100	60	1.650	4.800	0.500	0.895	0.886
101	60	1.700	2.750	0.500	0.902	0.916
102	60	1.750	4.100	0.460	0.884	0.865
103	60	1.800	3.700	0.420	0.855	0.858
104	60	1.850	3.600	0.420	0.879	0.889
105	60	1.900	4.250	0.540	0.851	0.850
106	60	1.950	3.450	0.100	0.841	0.860
107	60	2.000	1.950	0.440	0.852	0.886
108	60	2.050	2.900	0.380	0.829	0.851
109	60	2.100	3.500	0.500	0.832	0.866
110	60	2.150	4.750	0.500	0.833	0.860
111	60	2.200	4.000	0.420	0.827	0.833
112	60	2.250	1.500	0.360	0.833	0.856
113	60	2.300	1.450	0.360	0.820	0.868
114	60	2.350	4.300	0.360	0.825	0.824
115	60	2.400	4.200	0.360	0.826	0.846
116	65	1.150	5.000	0.200	0.823	0.811
117	65	1.200	4.950	0.140	0.828	0.825
118	65	1.250	4.350	0.120	0.806	0.808
119	65	1.300	4.650	0.380	0.936	0.936
120	65	1.350	4.200	0.420	0.920	0.923
121	65	1.400	3.800	0.300	0.904	0.909
122	65	1.450	3.400	0.360	0.905	0.919
123	65	1.500	4.500	0.660	0.876	0.872
124	65	1.550	3.900	0.620	0.876	0.884
125	65	1.600	4.400	0.320	0.860	0.852
126	65	1.650	4.150	0.340	0.870	0.905
127	65	1.700	2.450	0.280	0.846	0.880
128	65	1.750	2.750	0.180	0.833	0.869

Fig.19

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η TE	η TM
129	65	1.800	2.750	0.160	0.808	0.826
130	65	1.850	5.000	0.440	0.859	0.898
131	65	1.900	3.250	0.280	0.811	0.846
132	65	2.050	2.900	0.400	0.828	0.825
133	65	2.100	2.800	0.400	0.812	0.857
134	65	2.250	1.500	0.380	0.805	0.832
135	65	2.400	4.200	0.380	0.800	0.839
136	70	1.100	4.900	0.260	0.894	0.896
137	70	1.150	4.700	0.160	0.889	0.888
138	70	1.200	5.000	0.100	0.898	0.878
139	70	1.250	4.900	0.080	0.875	0.882
140	70	1.300	4.500	0.500	0.918	0.937
141	70	1.350	3.750	0.420	0.890	0.905
142	70	1.400	3.500	0.440	0.897	0.927
143	70	1.450	3.350	0.440	0.853	0.861
144	70	1.500	2.900	0.320	0.859	0.857
145	70	1.550	2.800	0.300	0.824	0.852
146	70	1.600	2.550	0.360	0.847	0.874
147	70	1.700	4.350	0.520	0.811	0.824
148	70	1.750	4.150	0.520	0.801	0.839
149	70	1.800	3.350	0.340	0.818	0.811
150	75	1.100	4.750	0.180	0.927	0.922
151	75	1.150	4.500	0.120	0.896	0.897
152	75	1.200	4.650	0.080	0.874	0.884
153	75	1.250	2.800	0.120	0.861	0.853
154	75	1.300	4.550	0.560	0.862	0.876
155	75	1.350	4.200	0.560	0.851	0.853
156	75	1.400	3.500	0.500	0.845	0.874
157	75	1.450	2.900	0.400	0.820	0.816
158	75	1.500	2.800	0.400	0.831	0.856
159	75	1.550	2.600	0.420	0.811	0.831
160	80	1.050	5.000	0.580	0.931	0.925
161	80	1.100	4.200	0.140	0.888	0.888
162	80	1.150	4.400	0.080	0.838	0.863

Fig.20A

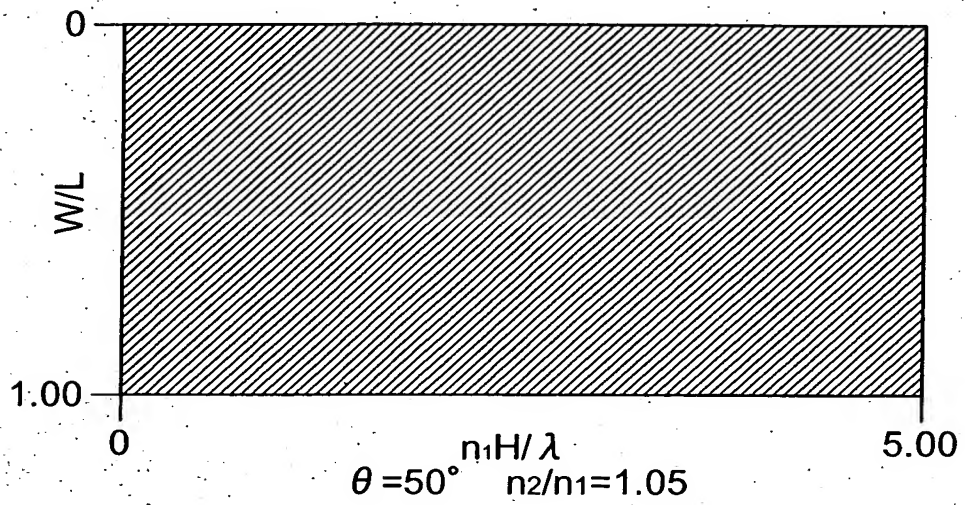

Fig.20B

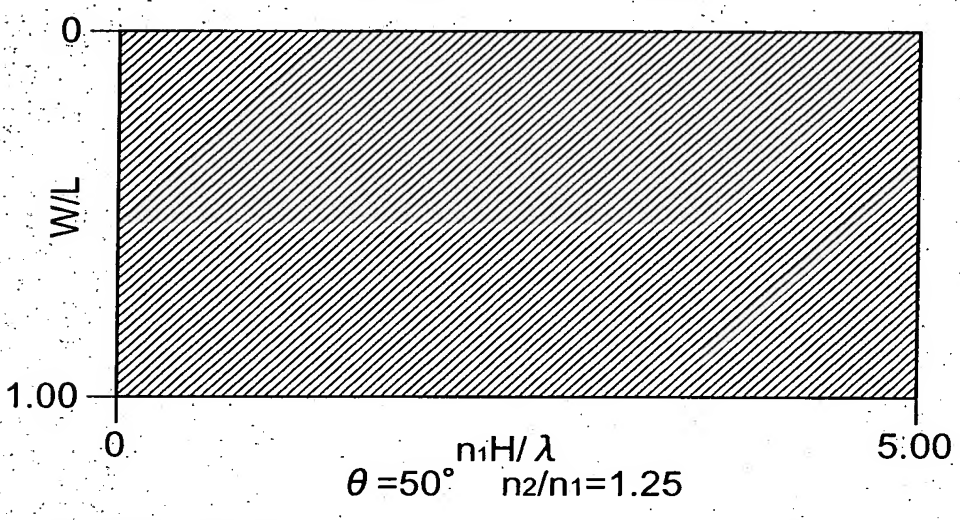

Fig.20C

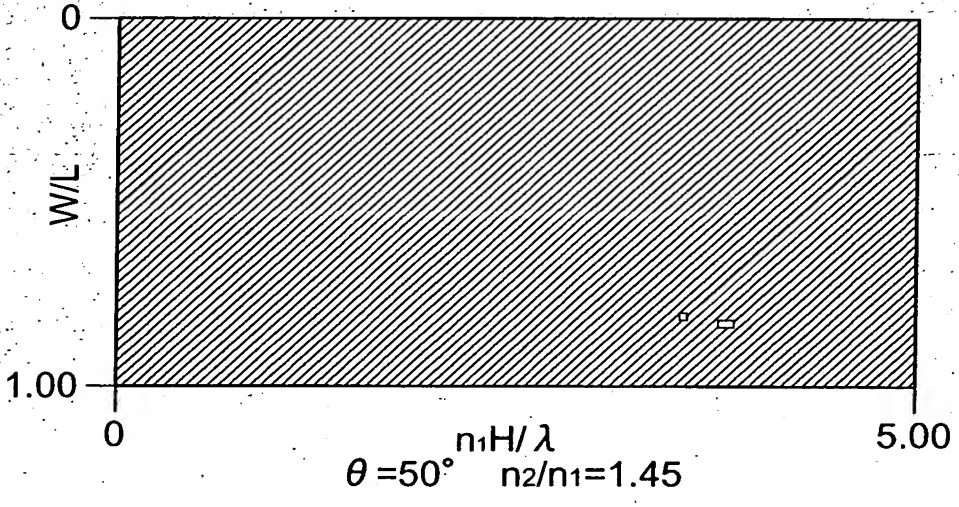

Fig.21A

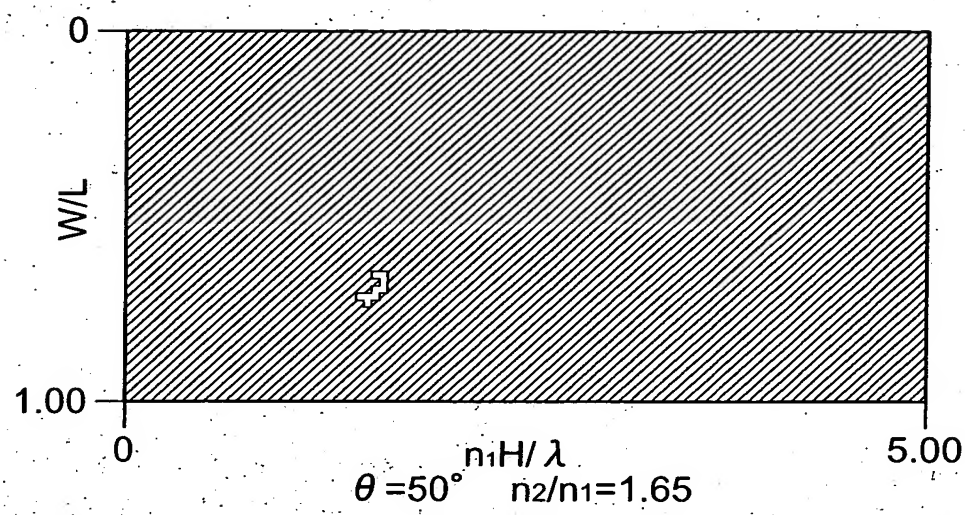

Fig.21B

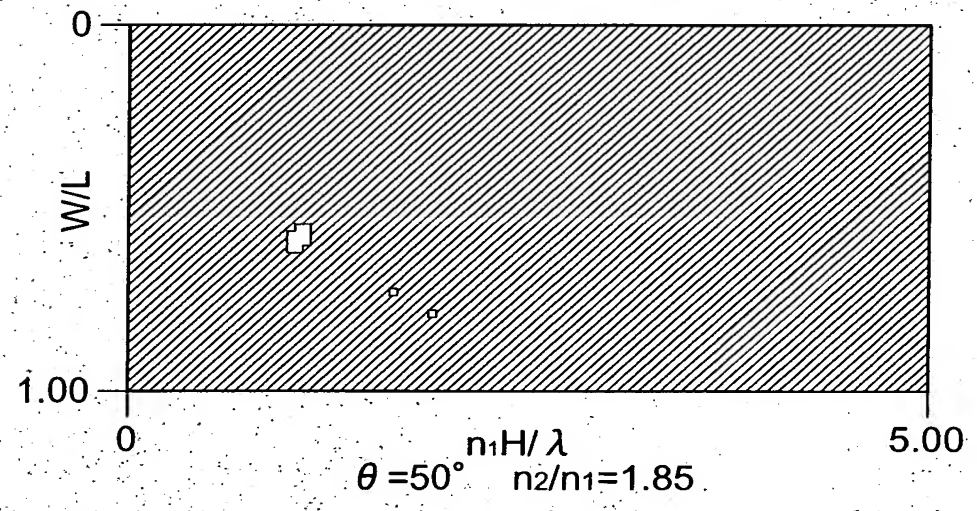

Fig.21C

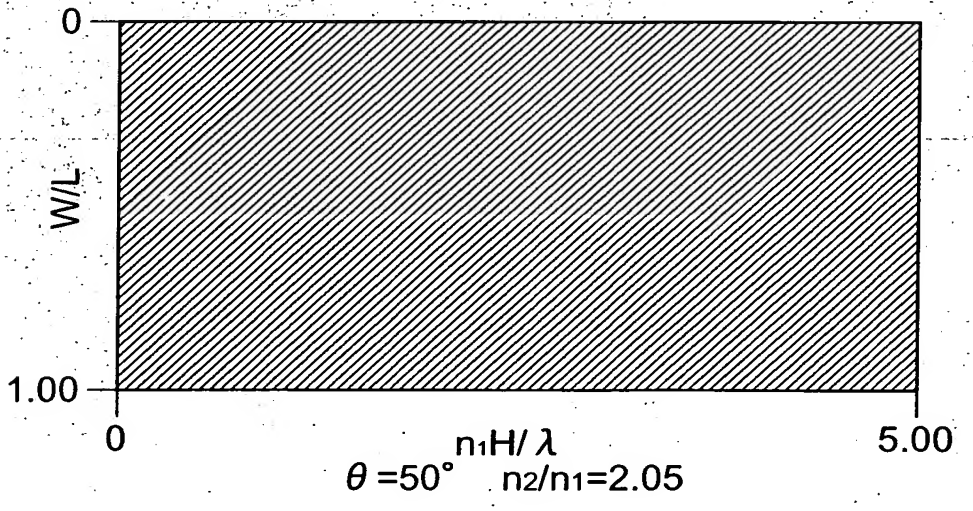

Fig.22

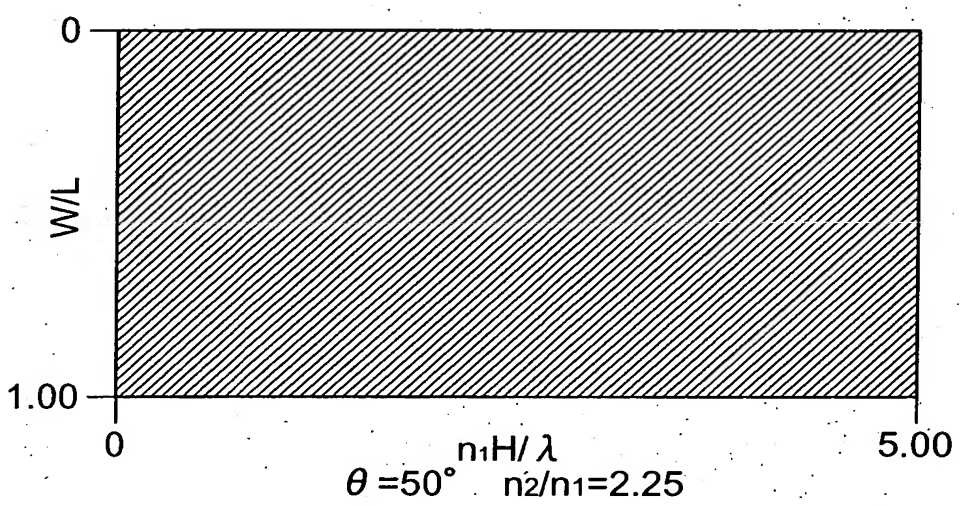

Fig.23A

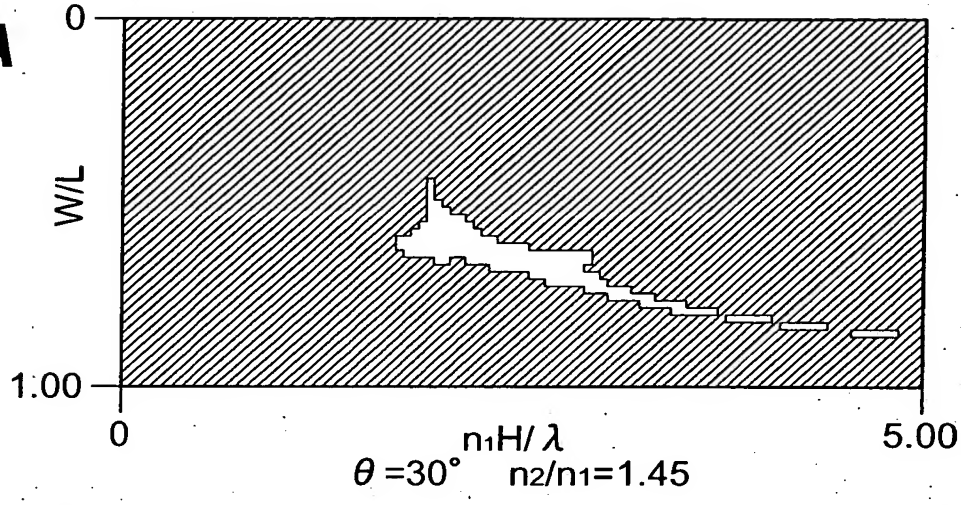

Fig.23B

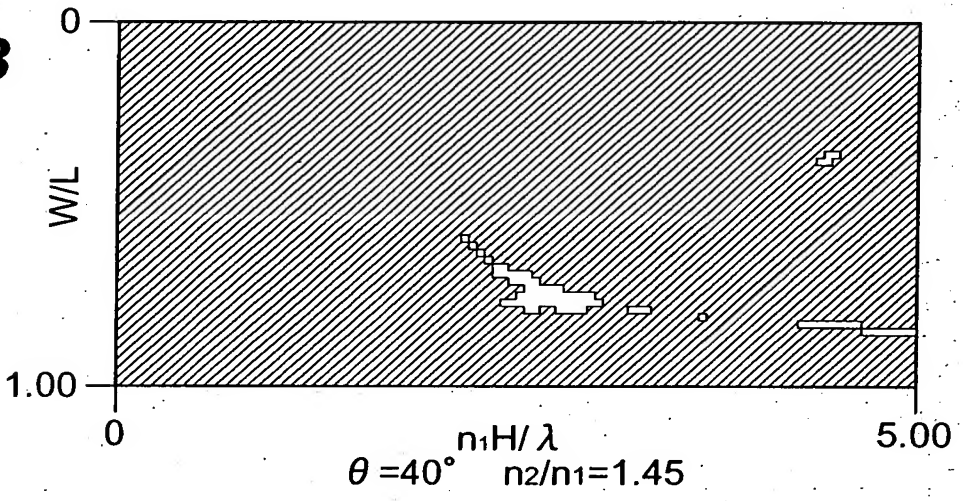

Fig.23C

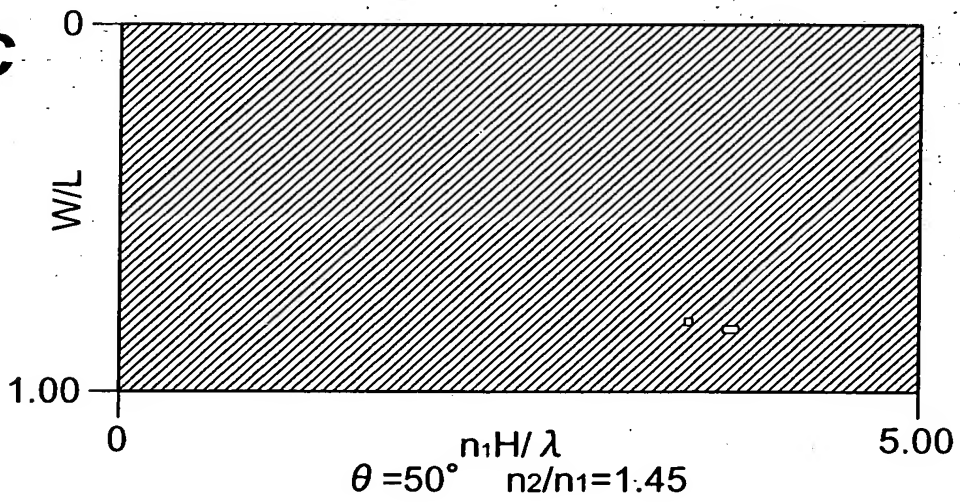

Fig.24A

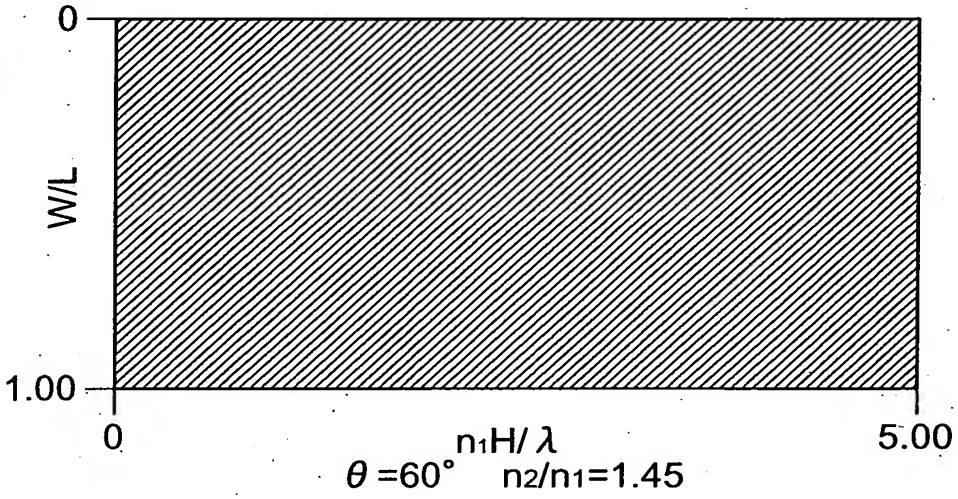

Fig.24B

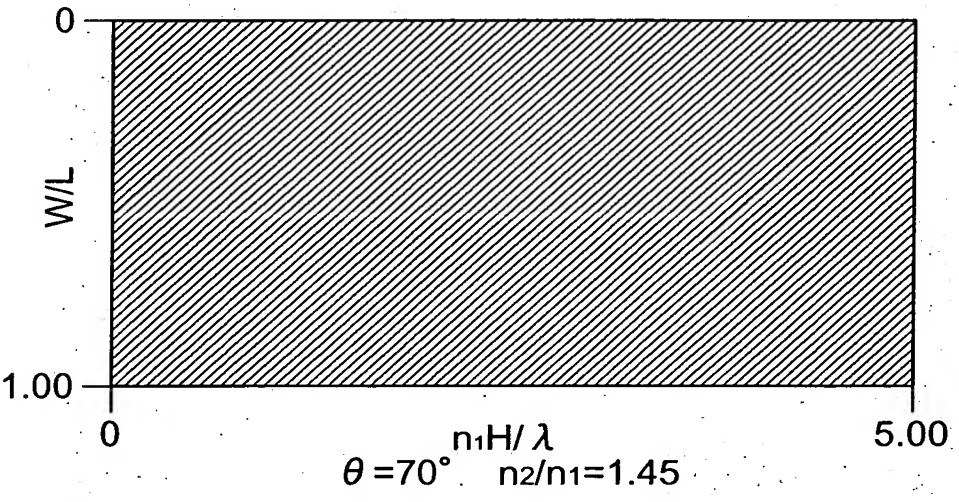

Fig.24C

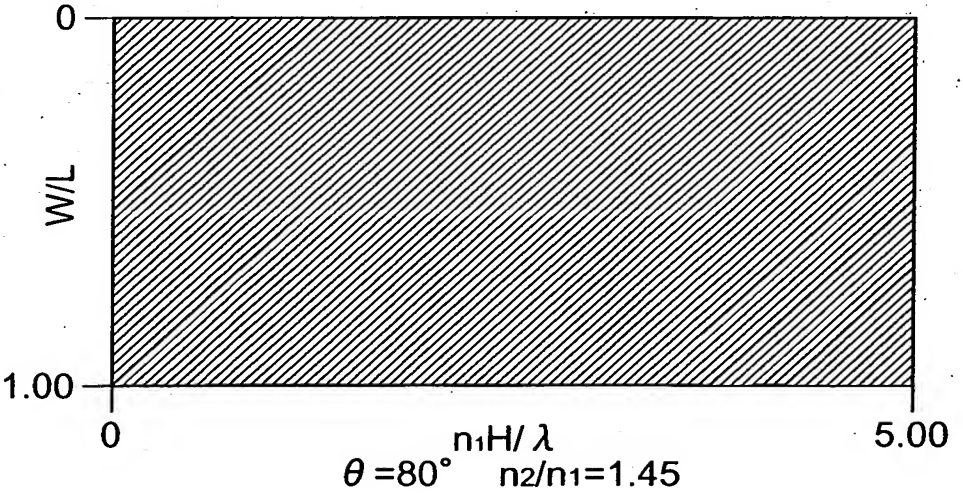

Fig.25

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η min	η max
1	25	1.200	4.950	0.640	0.965	0.981
2	25	1.250	4.650	0.740	0.962	0.973
3	30	1.200	5.000	0.640	0.904	0.941
4	30	1.250	4.700	0.720	0.957	0.977
5	30	1.300	4.600	0.780	0.973	0.985
6	30	1.350	4.600	0.800	0.969	0.980
7	30	1.400	4.000	0.800	0.962	0.972
8	30	1.450	2.400	0.660	0.971	0.982
9	30	1.500	4.350	0.860	0.896	0.922
10	35	1.250	5.000	0.740	0.898	0.939
11	35	1.300	5.000	0.800	0.953	0.976
12	35	1.350	4.100	0.800	0.955	0.973
13	35	1.400	2.950	0.720	0.964	0.982
14	35	1.450	2.450	0.700	0.964	0.979
15	35	1.500	2.000	0.640	0.961	0.974
16	35	1.550	2.250	0.700	0.941	0.961
17	35	1.600	1.550	0.580	0.955	0.967
18	35	1.650	1.500	0.580	0.951	0.969
19	35	1.700	2.150	0.760	0.863	0.891
20	40	1.300	4.750	0.780	0.881	0.926
21	40	1.350	5.000	0.840	0.935	0.965
22	40	1.400	3.450	0.780	0.949	0.972
23	40	1.450	2.850	0.780	0.936	0.961
24	40	1.500	2.100	0.660	0.937	0.960
25	40	1.550	1.950	0.700	0.943	0.968
26	40	1.600	1.600	0.600	0.931	0.951
27	40	1.650	1.500	0.620	0.940	0.965
28	40	1.700	1.750	0.700	0.925	0.948
29	40	1.750	1.650	0.700	0.898	0.928
30	40	1.800	1.050	0.560	0.905	0.926
31	40	1.850	1.050	0.520	0.929	0.944
32	40	1.900	1.200	0.600	0.856	0.901
33	45	1.400	4.350	0.840	0.916	0.954
34	45	1.450	3.350	0.820	0.919	0.951
35	45	1.500	2.500	0.760	0.926	0.954
36	45	1.550	2.000	0.700	0.923	0.952
37	45	1.600	1.650	0.620	0.884	0.921
38	45	1.650	1.550	0.660	0.924	0.947
39	45	1.700	2.550	0.820	0.839	0.880
40	45	1.750	1.150	0.620	0.853	0.890
41	45	1.800	1.150	0.560	0.891	0.920
42	45	1.850	1.050	0.560	0.912	0.929
43	45	1.900	1.300	0.660	0.879	0.913

Fig.26

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η min	η max
44	45	1.950	1.250	0.660	0.846	0.885
45	45	2.000	1.150	0.640	0.825	0.867
46	45	2.050	1.100	0.640	0.805	0.849
47	50	1.450	3.850	0.840	0.899	0.942
48	50	1.500	2.900	0.820	0.876	0.918
49	50	1.550	2.100	0.720	0.873	0.916
50	50	1.600	1.950	0.760	0.886	0.930
51	50	1.650	1.600	0.660	0.886	0.919
52	50	1.700	1.500	0.680	0.900	0.949
53	50	1.750	2.100	0.780	0.852	0.901
54	50	1.800	1.100	0.640	0.839	0.875
55	50	1.850	1.100	0.580	0.884	0.908
56	50	1.900	1.550	0.740	0.818	0.862
57	50	1.950	1.300	0.660	0.833	0.880
58	50	2.000	1.250	0.680	0.819	0.859
59	55	1.500	3.350	0.840	0.864	0.914
60	55	1.600	2.000	0.760	0.852	0.897
61	55	1.700	1.500	0.720	0.862	0.899
62	55	1.850	1.100	0.620	0.841	0.877

Fig.27A

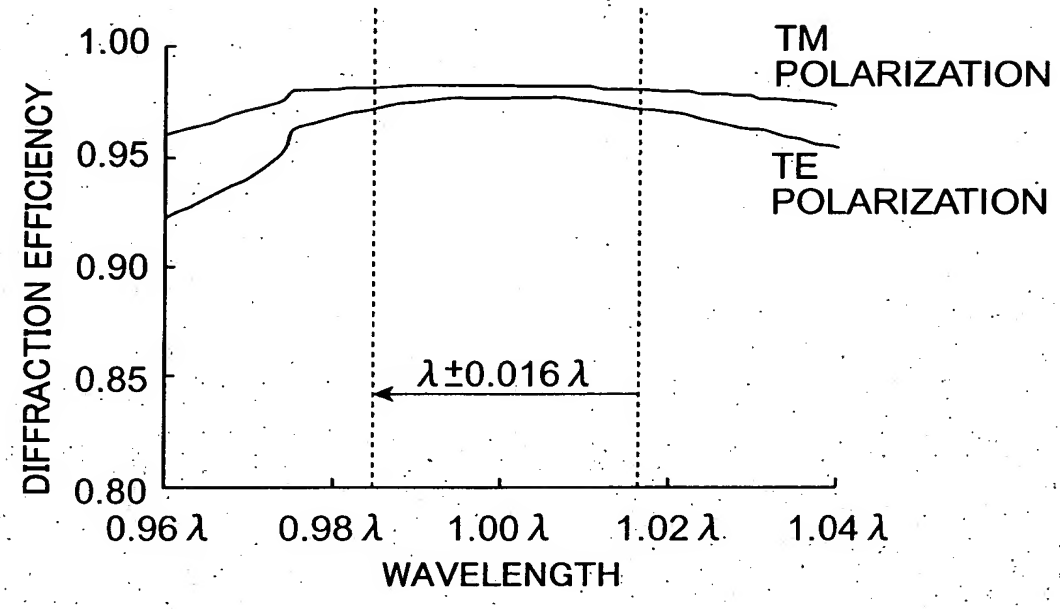

Fig.27B

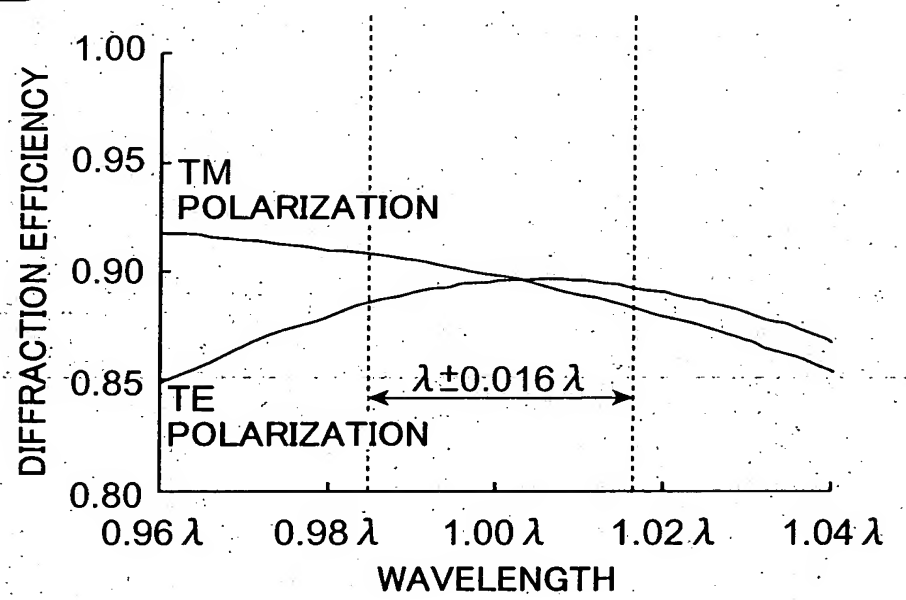

Fig.28

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η TE	η TM
1	25	1.200	4.800	0.620	0.973	0.974
2	25	1.250	4.500	0.700	0.992	0.990
3	30	1.200	5.000	0.640	0.924	0.929
4	30	1.250	4.700	0.720	0.973	0.973
5	30	1.300	4.400	0.760	0.985	0.989
6	30	1.350	3.400	0.720	0.983	0.988
7	30	1.400	2.550	0.640	0.980	0.983
8	30	1.450	2.400	0.660	0.976	0.982
9	30	1.500	1.950	0.600	0.974	0.977
10	35	1.250	5.000	0.740	0.923	0.929
11	35	1.300	5.000	0.800	0.974	0.973
12	35	1.350	4.300	0.800	0.976	0.987
13	35	1.400	2.950	0.720	0.973	0.979
14	35	1.450	2.450	0.700	0.971	0.975
15	35	1.500	2.000	0.640	0.969	0.970
16	35	1.550	1.950	0.660	0.962	0.978
17	35	1.600	1.550	0.580	0.964	0.962
18	35	1.650	1.500	0.580	0.959	0.969
19	35	1.700	1.450	0.580	0.952	0.955
20	40	1.300	4.750	0.780	0.922	0.916
21	40	1.350	4.950	0.840	0.962	0.957
22	40	1.400	3.450	0.780	0.964	0.967
23	40	1.450	4.450	0.380	0.965	0.984
24	40	1.500	3.950	0.360	0.962	0.979
25	40	1.550	1.950	0.680	0.953	0.971
26	40	1.600	3.300	0.340	0.952	0.977
27	40	1.650	1.500	0.620	0.949	0.962
28	40	1.700	1.450	0.620	0.943	0.970
29	40	1.750	3.950	0.600	0.940	0.957
30	40	1.800	1.350	0.620	0.930	0.934
31	40	1.850	1.050	0.520	0.935	0.939
32	40	1.900	1.000	0.520	0.929	0.949
33	45	1.350	4.750	0.820	0.910	0.912
34	45	1.400	5.000	0.500	0.960	0.977
35	45	1.450	4.400	0.480	0.964	0.965
36	45	1.500	3.900	0.440	0.960	0.987
37	45	1.550	2.050	0.720	0.938	0.940
38	45	1.600	3.250	0.420	0.952	0.967
39	45	1.650	1.550	0.660	0.935	0.939
40	45	1.700	2.750	0.360	0.937	0.937
41	45	1.750	4.850	0.480	0.940	0.942

Fig.29

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η TE	η TM
42	45	1.800	4.100	0.300	0.919	0.927
43	45	1.850	1.050	0.560	0.922	0.922
44	45	1.900	1.050	0.560	0.912	0.945
45	45	1.950	1.000	0.560	0.910	0.954
46	45	2.000	4.650	0.360	0.905	0.951
47	45	2.050	2.600	0.520	0.901	0.912
48	45	2.100	0.900	0.540	0.889	0.924
49	50	1.400	5.000	0.560	0.940	0.983
50	50	1.450	4.450	0.540	0.958	0.996
51	50	1.500	3.900	0.500	0.953	0.986
52	50	1.550	3.400	0.460	0.945	0.920
53	50	1.600	3.250	0.480	0.943	0.978
54	50	1.650	4.800	0.380	0.922	0.941
55	50	1.700	2.750	0.420	0.930	0.970
56	50	1.750	2.600	0.440	0.926	0.925
57	50	1.800	4.700	0.520	0.921	0.910
58	50	1.850	1.100	0.580	0.896	0.898
59	50	1.900	2.150	0.360	0.902	0.913
60	50	1.950	2.050	0.380	0.903	0.952
61	50	2.000	3.650	0.460	0.900	0.886
62	50	2.050	0.950	0.580	0.874	0.960
63	50	2.100	4.150	0.540	0.877	0.905
64	50	2.150	3.150	0.420	0.886	0.886
65	50	2.200	3.000	0.420	0.857	0.873
66	50	2.250	3.600	0.500	0.853	0.920
67	55	1.400	5.000	0.620	0.854	0.866
68	55	1.450	4.950	0.620	0.935	0.997
69	55	1.500	4.350	0.600	0.938	0.970
70	55	1.550	3.800	0.560	0.933	0.984
71	55	1.600	3.300	0.520	0.930	0.990
72	55	1.650	3.150	0.520	0.923	0.942
73	55	1.700	2.750	0.460	0.920	0.947
74	55	1.750	2.600	0.480	0.906	0.959
75	55	1.800	3.900	0.120	0.888	0.977
76	55	1.850	3.600	0.380	0.893	0.903
77	55	1.900	2.100	0.400	0.889	0.920
78	55	1.950	2.050	0.420	0.884	0.950
79	55	2.000	3.700	0.480	0.875	0.881
80	55	2.050	3.550	0.480	0.868	0.918
81	55	2.100	2.850	0.340	0.867	0.885
82	55	2.150	4.700	0.480	0.863	0.896
83	55	2.200	3.050	0.440	0.852	0.929
84	60	1.300	5.000	0.340	0.909	0.918
85	60	1.350	5.000	0.280	0.916	0.995

Fig.30

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η TE	η TM
86	60	1.400	4.250	0.280	0.932	0.954
87	60	1.450	4.350	0.220	0.924	0.982
88	60	1.500	4.450	0.180	0.912	0.930
89	60	1.550	3.850	0.600	0.909	0.988
90	60	1.600	3.650	0.600	0.902	0.927
91	60	1.650	3.200	0.560	0.897	0.983
92	60	1.700	2.750	0.500	0.902	0.916
93	60	1.750	2.650	0.500	0.893	0.993
94	60	1.800	2.550	0.500	0.880	0.925
95	60	1.850	3.600	0.420	0.879	0.889
96	60	1.900	2.100	0.440	0.876	0.949
97	60	1.950	2.050	0.440	0.875	0.973
98	60	2.000	2.000	0.440	0.864	0.907
99	65	1.300	4.650	0.380	0.936	0.936
100	65	1.350	4.200	0.420	0.920	0.923
101	65	1.400	3.800	0.300	0.904	0.909
102	65	1.450	3.400	0.360	0.905	0.919
103	65	1.500	4.500	0.660	0.876	0.872
104	65	1.550	3.900	0.620	0.876	0.884
105	65	1.600	3.750	0.620	0.859	0.986
106	65	1.650	4.150	0.340	0.870	0.905
107	65	1.700	3.100	0.580	0.853	0.925
108	65	1.850	5.000	0.440	0.859	0.898
109	70	1.100	4.900	0.260	0.894	0.896
110	70	1.150	4.700	0.160	0.889	0.888
111	70	1.200	5.000	0.100	0.898	0.878
112	70	1.250	4.900	0.080	0.875	0.882
113	70	1.300	4.500	0.500	0.918	0.937
114	70	1.350	3.750	0.420	0.890	0.905
115	70	1.400	3.500	0.440	0.897	0.927
116	70	1.450	3.350	0.440	0.853	0.861
117	70	1.500	5.000	0.440	0.864	0.924
118	70	1.550	2.700	0.340	0.856	0.954
119	75	1.100	4.750	0.180	0.927	0.922
120	75	1.150	4.500	0.120	0.896	0.897
121	75	1.200	4.650	0.080	0.874	0.884
122	75	1.250	2.800	0.120	0.861	0.853
123	75	1.300	4.550	0.560	0.862	0.876
124	75	1.350	4.200	0.560	0.851	0.853
125	80	1.050	5.000	0.580	0.931	0.925
126	80	1.100	4.200	0.140	0.888	0.888

Fig.31

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η TE	η TM
1	25	1.200	4.800	0.620	0.973	0.974
2	25	1.250	4.500	0.700	0.992	0.990
3	30	1.200	5.000	0.640	0.924	0.929
4	30	1.250	4.700	0.720	0.973	0.973
5	30	1.300	4.400	0.760	0.985	0.989
6	30	1.350	3.400	0.720	0.983	0.988
7	30	1.400	2.550	0.640	0.980	0.983
8	30	1.450	2.400	0.660	0.976	0.982
9	30	1.500	1.950	0.600	0.974	0.977
10	35	1.250	5.000	0.740	0.923	0.929
11	35	1.300	5.000	0.800	0.974	0.973
12	35	1.350	4.300	0.800	0.976	0.987
13	35	1.400	2.950	0.720	0.973	0.979
14	35	1.450	2.450	0.700	0.971	0.975
15	35	1.500	2.000	0.640	0.969	0.970
16	35	1.550	1.950	0.660	0.962	0.978
17	35	1.600	1.550	0.580	0.964	0.962
18	35	1.650	1.500	0.580	0.959	0.969
19	35	1.700	1.450	0.580	0.952	0.955
20	40	1.300	4.750	0.780	0.922	0.916
21	40	1.350	4.950	0.840	0.962	0.957
22	40	1.400	3.450	0.780	0.964	0.967
23	40	1.450	4.450	0.380	0.965	0.984
24	40	1.500	3.950	0.360	0.962	0.979
25	40	1.550	1.950	0.680	0.953	0.971
26	40	1.600	3.300	0.340	0.952	0.977
27	40	1.650	1.500	0.620	0.949	0.962
28	40	1.700	1.450	0.620	0.943	0.970
29	40	1.750	3.950	0.600	0.940	0.957
30	40	1.800	1.350	0.620	0.930	0.934
31	40	1.850	1.050	0.520	0.935	0.939
32	40	1.900	1.000	0.520	0.929	0.949
33	45	1.350	4.750	0.820	0.910	0.912
34	45	1.400	5.000	0.500	0.960	0.977
35	45	1.450	4.400	0.480	0.964	0.965
36	45	1.500	3.900	0.440	0.960	0.987
37	45	1.550	2.050	0.720	0.938	0.940
38	45	1.600	3.250	0.420	0.952	0.967
39	45	1.650	1.550	0.660	0.935	0.939
40	45	1.700	2.750	0.360	0.937	0.937
41	45	1.750	4.850	0.480	0.940	0.942

Fig.32

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η TE	η TM
42	45	1.800	4.100	0.300	0.919	0.927
43	45	1.850	1.050	0.560	0.922	0.922
44	45	1.900	1.050	0.560	0.912	0.945
45	45	1.950	1.000	0.560	0.910	0.954
46	45	2.000	4.650	0.360	0.905	0.951
47	45	2.050	2.600	0.520	0.901	0.912
48	50	1.400	5.000	0.560	0.940	0.983
49	50	1.450	4.450	0.540	0.958	0.996
50	50	1.500	3.900	0.500	0.953	0.986
51	50	1.550	3.400	0.460	0.945	0.920
52	50	1.600	3.250	0.480	0.943	0.978
53	50	1.650	4.800	0.380	0.922	0.941
54	50	1.700	2.750	0.420	0.930	0.970
55	50	1.750	2.600	0.440	0.926	0.925
56	50	1.800	4.700	0.520	0.921	0.910
57	50	1.900	2.150	0.360	0.902	0.913
58	50	1.950	2.050	0.380	0.903	0.952
59	55	1.450	4.950	0.620	0.935	0.997
60	55	1.500	4.350	0.600	0.938	0.970
61	55	1.550	3.800	0.560	0.933	0.984
62	55	1.600	3.300	0.520	0.930	0.990
63	55	1.650	3.150	0.520	0.923	0.942
64	55	1.700	2.750	0.460	0.920	0.947
65	55	1.750	2.600	0.480	0.906	0.959
66	60	1.300	5.000	0.340	0.909	0.918
67	60	1.350	5.000	0.280	0.916	0.995
68	60	1.400	4.250	0.280	0.932	0.954
69	60	1.450	4.350	0.220	0.924	0.982
70	60	1.500	4.450	0.180	0.912	0.930
71	60	1.550	3.850	0.600	0.909	0.988
72	60	1.600	3.650	0.600	0.902	0.927
73	60	1.700	2.750	0.500	0.902	0.916
74	65	1.300	4.650	0.380	0.936	0.936
75	65	1.350	4.200	0.420	0.920	0.923
76	65	1.400	3.800	0.300	0.904	0.909
77	65	1.450	3.400	0.360	0.905	0.919
78	70	1.300	4.500	0.500	0.918	0.937
79	75	1.100	4.750	0.180	0.927	0.922
80	80	1.050	5.000	0.580	0.931	0.925

Fig.33

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η TE	η TM
1	25	1.200	4.800	0.620	0.973	0.974
2	25	1.250	4.500	0.700	0.992	0.990
3	30	1.200	5.000	0.640	0.924	0.929
4	30	1.250	4.700	0.720	0.973	0.973
5	30	1.300	4.400	0.760	0.985	0.989
6	30	1.350	3.400	0.720	0.983	0.988
7	30	1.400	2.550	0.640	0.980	0.983
8	30	1.450	2.400	0.660	0.976	0.982
9	30	1.500	1.950	0.600	0.974	0.977
10	35	1.250	5.000	0.740	0.923	0.929
11	35	1.300	5.000	0.800	0.974	0.973
12	35	1.350	3.900	0.780	0.978	0.976
13	35	1.400	2.950	0.720	0.973	0.979
14	35	1.450	2.450	0.700	0.971	0.975
15	35	1.500	2.000	0.640	0.969	0.970
16	35	1.550	3.800	0.300	0.960	0.964
17	35	1.600	1.550	0.580	0.964	0.962
18	35	1.650	1.500	0.580	0.959	0.969
19	35	1.700	1.450	0.580	0.952	0.955
20	40	1.300	4.750	0.780	0.922	0.916
21	40	1.350	4.950	0.840	0.962	0.957
22	40	1.400	3.450	0.780	0.964	0.967
23	40	1.450	4.350	0.400	0.963	0.959
24	40	1.500	3.900	0.380	0.959	0.970
25	40	1.550	1.950	0.700	0.949	0.963
26	40	1.600	3.250	0.360	0.945	0.964
27	40	1.650	1.500	0.620	0.949	0.962
28	40	1.700	1.750	0.700	0.932	0.937
29	40	1.750	3.950	0.600	0.940	0.957
30	40	1.800	1.350	0.620	0.930	0.934
31	40	1.850	1.050	0.520	0.935	0.939
32	40	1.900	1.000	0.520	0.929	0.949
33	45	1.350	4.750	0.820	0.910	0.912
34	45	1.400	4.950	0.520	0.967	0.952
35	45	1.450	4.400	0.480	0.964	0.965
36	45	1.500	3.850	0.460	0.957	0.969
37	45	1.550	2.050	0.720	0.938	0.940
38	45	1.600	3.250	0.420	0.952	0.967
39	45	1.650	1.550	0.660	0.935	0.939
40	45	1.700	2.750	0.360	0.937	0.937
41	45	1.750	4.850	0.480	0.940	0.942

Fig.34

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η TE	η TM
42	45	1.800	4.100	0.300	0.919	0.927
43	45	1.850	1.050	0.560	0.922	0.922
44	45	1.900	3.350	0.600	0.909	0.911
45	45	1.950	3.000	0.560	0.909	0.928
46	45	2.000	2.900	0.560	0.902	0.896
47	45	2.050	2.600	0.520	0.901	0.912
48	45	2.100	0.900	0.540	0.889	0.924
49	50	1.400	5.000	0.860	0.918	0.917
50	50	1.450	4.250	0.860	0.926	0.947
51	50	1.500	2.900	0.800	0.922	0.941
52	50	1.550	3.400	0.460	0.945	0.920
53	50	1.600	1.950	0.740	0.915	0.938
54	50	1.650	4.800	0.380	0.922	0.941
55	50	1.700	1.500	0.680	0.910	0.943
56	50	1.750	2.600	0.440	0.926	0.925
57	50	1.800	4.700	0.520	0.921	0.910
58	50	1.850	1.100	0.580	0.896	0.898
59	50	1.900	2.150	0.360	0.902	0.913
60	50	1.950	3.800	0.460	0.888	0.902
61	50	2.000	3.650	0.460	0.900	0.886
62	50	2.050	4.300	0.280	0.870	0.883
63	50	2.100	4.150	0.540	0.877	0.905
64	50	2.150	3.150	0.420	0.886	0.886
65	50	2.200	3.000	0.420	0.857	0.873
66	55	1.400	5.000	0.620	0.854	0.866
67	55	1.450	4.550	0.580	0.941	0.922
68	55	1.500	3.950	0.560	0.936	0.950
69	55	1.550	4.700	0.160	0.923	0.953
70	55	1.600	5.000	0.440	0.929	0.928
71	55	1.650	3.150	0.520	0.923	0.942
72	55	1.700	2.750	0.460	0.920	0.947
73	55	1.750	4.550	0.220	0.880	0.878
74	55	1.800	4.550	0.200	0.886	0.923
75	55	1.850	3.600	0.380	0.893	0.903
76	55	1.900	2.100	0.400	0.889	0.920
77	55	1.950	4.000	0.520	0.865	0.863
78	55	2.000	3.700	0.480	0.875	0.881
79	55	2.050	3.600	0.480	0.865	0.866
80	55	2.100	2.850	0.340	0.867	0.885
81	55	2.150	4.700	0.480	0.863	0.896
82	60	1.300	5.000	0.340	0.909	0.918
83	60	1.350	4.700	0.320	0.884	0.922
84	60	1.400	4.250	0.280	0.932	0.954
85	60	1.450	5.000	0.660	0.910	0.947

Fig.35

No.	θ [deg]	n_2/n_1	n_1H/λ	W/L	η TE	η TM
86	60	1.500	4.450	0.180	0.912	0.930
87	60	1.550	4.400	0.160	0.906	0.902
88	60	1.600	3.650	0.600	0.902	0.927
89	60	1.650	4.800	0.500	0.895	0.886
90	60	1.700	2.750	0.500	0.902	0.916
91	60	1.750	4.050	0.260	0.868	0.903
92	60	1.800	2.550	0.500	0.880	0.925
93	60	1.850	3.600	0.420	0.879	0.889
94	60	1.900	4.250	0.540	0.851	0.850
95	60	1.950	4.100	0.540	0.850	0.895
96	60	2.000	2.000	0.440	0.864	0.907
97	65	1.300	4.650	0.380	0.936	0.936
98	65	1.350	4.200	0.420	0.920	0.923
99	65	1.400	3.800	0.300	0.904	0.909
100	65	1.450	3.400	0.360	0.905	0.919
101	65	1.500	4.500	0.660	0.876	0.872
102	65	1.550	3.900	0.620	0.876	0.884
103	65	1.600	4.400	0.320	0.860	0.852
104	65	1.650	4.150	0.340	0.870	0.905
105	65	1.850	5.000	0.440	0.859	0.898
106	70	1.100	4.900	0.260	0.894	0.896
107	70	1.150	4.700	0.160	0.889	0.888
108	70	1.200	5.000	0.100	0.898	0.878
109	70	1.250	4.900	0.080	0.875	0.882
110	70	1.300	4.500	0.500	0.918	0.937
111	70	1.350	3.750	0.420	0.890	0.905
112	70	1.400	3.500	0.440	0.897	0.927
113	70	1.450	3.350	0.440	0.853	0.861
114	70	1.500	2.900	0.320	0.859	0.857
115	75	1.100	4.750	0.180	0.927	0.922
116	75	1.150	4.500	0.120	0.896	0.897
117	75	1.200	4.650	0.080	0.874	0.884
118	75	1.250	2.800	0.120	0.861	0.853
119	75	1.300	4.550	0.560	0.862	0.876
120	75	1.350	4.200	0.560	0.851	0.853
121	80	1.050	5.000	0.580	0.931	0.925
122	80	1.100	4.200	0.140	0.888	0.888

Fig.36

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η TE	η TM
1	25	1.200	4.800	0.620	0.973	0.974
2	25	1.250	4.500	0.700	0.992	0.990
3	30	1.200	5.000	0.640	0.924	0.929
4	30	1.250	4.700	0.720	0.973	0.973
5	30	1.300	4.400	0.760	0.985	0.989
6	30	1.350	3.400	0.720	0.983	0.988
7	30	1.400	2.550	0.640	0.980	0.983
8	30	1.450	2.400	0.660	0.976	0.982
9	30	1.500	1.950	0.600	0.974	0.977
10	35	1.250	5.000	0.740	0.923	0.929
11	35	1.300	5.000	0.800	0.974	0.973
12	35	1.350	4.300	0.800	0.976	0.987
13	35	1.400	2.950	0.720	0.973	0.979
14	35	1.450	2.450	0.700	0.971	0.975
15	35	1.500	2.000	0.640	0.969	0.970
16	35	1.550	1.950	0.660	0.962	0.978
17	35	1.600	1.550	0.580	0.964	0.962
18	35	1.650	1.500	0.580	0.959	0.969
19	35	1.700	1.450	0.580	0.952	0.955
20	40	1.300	4.750	0.780	0.922	0.916
21	40	1.350	4.950	0.840	0.962	0.957
22	40	1.400	3.450	0.780	0.964	0.967
23	40	1.450	4.450	0.380	0.965	0.984
24	40	1.500	3.950	0.360	0.962	0.979
25	40	1.550	1.950	0.680	0.953	0.971
26	40	1.600	3.300	0.340	0.952	0.977
27	40	1.650	1.500	0.620	0.949	0.962
28	40	1.700	1.450	0.620	0.943	0.970
29	40	1.750	3.950	0.600	0.940	0.957
30	40	1.800	1.350	0.620	0.930	0.934
31	40	1.850	1.050	0.520	0.935	0.939
32	40	1.900	1.000	0.520	0.929	0.949
33	45	1.350	4.750	0.820	0.910	0.912
34	45	1.400	5.000	0.500	0.960	0.977
35	45	1.450	4.400	0.480	0.964	0.965
36	45	1.500	3.850	0.460	0.957	0.969
37	45	1.550	2.050	0.720	0.938	0.940
38	45	1.600	3.250	0.420	0.952	0.967
39	45	1.650	1.550	0.660	0.935	0.939
40	45	1.700	2.750	0.360	0.937	0.937
41	45	1.750	4.850	0.480	0.940	0.942

Fig.37

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η TE	η TM
42	45	1.800	4.100	0.300	0.919	0.927
43	45	1.850	1.050	0.560	0.922	0.922
44	45	1.900	1.050	0.560	0.912	0.945
45	45	1.950	1.000	0.560	0.910	0.954
46	45	2.000	4.650	0.360	0.905	0.951
47	45	2.050	2.600	0.520	0.901	0.912
48	50	1.400	5.000	0.860	0.918	0.917
49	50	1.450	4.500	0.560	0.939	0.971
50	50	1.500	3.950	0.500	0.948	0.980
51	50	1.550	3.400	0.460	0.945	0.920
52	50	1.600	3.300	0.480	0.933	0.966
53	50	1.650	4.800	0.380	0.922	0.941
54	50	1.700	2.750	0.420	0.930	0.970
55	50	1.750	2.600	0.440	0.926	0.925
56	50	1.800	4.700	0.520	0.921	0.910
57	50	1.900	2.150	0.360	0.902	0.913
58	50	1.950	2.050	0.380	0.903	0.952
59	55	1.450	4.550	0.600	0.928	0.955
60	55	1.500	4.350	0.600	0.938	0.970
61	55	1.550	4.700	0.160	0.923	0.953
62	55	1.600	5.000	0.440	0.929	0.928
63	55	1.650	3.150	0.520	0.923	0.942
64	55	1.700	2.750	0.460	0.920	0.947
65	60	1.300	5.000	0.340	0.909	0.918
66	60	1.400	4.250	0.280	0.932	0.954
67	60	1.450	5.000	0.660	0.910	0.947
68	60	1.500	4.450	0.180	0.912	0.930
69	60	1.550	4.400	0.160	0.906	0.902
70	60	1.600	3.650	0.600	0.902	0.927
71	60	1.700	2.750	0.500	0.902	0.916
72	65	1.300	4.650	0.380	0.936	0.936
73	65	1.350	4.200	0.420	0.920	0.923
74	65	1.400	3.800	0.300	0.904	0.909
75	65	1.450	3.400	0.360	0.905	0.919
76	70	1.300	4.500	0.500	0.918	0.937
77	75	1.100	4.750	0.180	0.927	0.922
78	80	1.050	5.000	0.580	0.931	0.925

Fig.38

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η TE	η TM
1	25	1.200	4.800	0.620	0.973	0.974
2	25	1.250	4.500	0.700	0.992	0.990
3	30	1.200	5.000	0.640	0.924	0.929
4	30	1.250	4.700	0.720	0.973	0.973
5	30	1.300	4.400	0.760	0.985	0.989
6	30	1.350	3.400	0.720	0.983	0.988
7	30	1.400	2.550	0.640	0.980	0.983
8	30	1.450	2.400	0.660	0.976	0.982
9	30	1.500	1.950	0.600	0.974	0.977
10	35	1.250	5.000	0.740	0.923	0.929
11	35	1.300	5.000	0.800	0.974	0.973
12	35	1.350	3.900	0.780	0.978	0.976
13	35	1.400	2.950	0.720	0.973	0.979
14	35	1.450	2.450	0.700	0.971	0.975
15	35	1.500	2.000	0.640	0.969	0.970
16	35	1.550	3.800	0.300	0.960	0.964
17	35	1.600	1.550	0.580	0.964	0.962
18	35	1.650	1.500	0.580	0.959	0.969
19	35	1.700	1.450	0.580	0.952	0.955
20	40	1.300	4.750	0.780	0.922	0.916
21	40	1.350	4.950	0.840	0.962	0.957
22	40	1.400	3.450	0.780	0.964	0.967
23	40	1.450	4.350	0.400	0.963	0.959
24	40	1.500	3.900	0.380	0.959	0.970
25	40	1.550	1.950	0.700	0.949	0.963
26	40	1.600	3.300	0.360	0.945	0.956
27	40	1.650	1.500	0.620	0.949	0.962
28	40	1.700	1.750	0.700	0.932	0.937
29	40	1.750	2.700	0.300	0.936	0.932
30	40	1.800	1.350	0.620	0.930	0.934
31	40	1.850	1.050	0.520	0.935	0.939
32	40	1.900	1.000	0.520	0.929	0.949
33	45	1.350	4.750	0.820	0.910	0.912
34	45	1.400	4.900	0.520	0.952	0.958
35	45	1.450	4.400	0.480	0.964	0.965
36	45	1.500	3.900	0.460	0.956	0.958
37	45	1.550	2.050	0.720	0.938	0.940
38	45	1.600	3.250	0.420	0.952	0.967
39	45	1.650	1.550	0.660	0.935	0.939
40	45	1.700	2.750	0.360	0.937	0.937
41	45	1.750	4.850	0.480	0.940	0.942

Fig.39

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η TE	η TM
42	45	1.800	4.100	0.300	0.919	0.927
43	45	1.850	1.050	0.560	0.922	0.922
44	45	1.900	3.350	0.600	0.909	0.911
45	45	1.950	3.000	0.560	0.909	0.928
46	45	2.050	2.600	0.520	0.901	0.912
47	50	1.400	5.000	0.860	0.918	0.917
48	50	1.450	3.850	0.840	0.926	0.935
49	50	1.500	2.900	0.800	0.922	0.941
50	50	1.550	3.350	0.460	0.925	0.920
51	50	1.600	1.950	0.740	0.915	0.938
52	50	1.650	4.800	0.380	0.922	0.941
53	50	1.750	2.600	0.440	0.926	0.925
54	50	1.800	4.700	0.520	0.921	0.910
55	50	1.900	2.150	0.360	0.902	0.913
56	55	1.450	4.550	0.580	0.941	0.922
57	55	1.500	3.950	0.560	0.936	0.950
58	55	1.600	5.000	0.440	0.929	0.928
59	55	1.650	3.150	0.520	0.923	0.942
60	60	1.300	5.000	0.340	0.909	0.918
61	60	1.400	4.200	0.300	0.931	0.917
62	60	1.500	4.450	0.180	0.912	0.930
63	60	1.550	4.400	0.160	0.906	0.902
64	60	1.700	2.750	0.500	0.902	0.916
65	65	1.300	4.650	0.380	0.936	0.936
66	65	1.350	4.200	0.420	0.920	0.923
67	65	1.400	3.800	0.300	0.904	0.909
68	65	1.450	3.400	0.360	0.905	0.919
69	70	1.300	4.500	0.500	0.918	0.937
70	75	1.100	4.750	0.180	0.927	0.922
71	80	1.050	5.000	0.580	0.931	0.925

Fig.40

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η min	η max
1	25	1.200	4.950	0.640	0.965	0.981
2	25	1.250	4.700	0.740	0.966	0.978
3	30	1.200	5.000	0.640	0.904	0.941
4	30	1.250	4.700	0.720	0.957	0.977
5	30	1.300	4.600	0.780	0.973	0.985
6	30	1.350	4.600	0.800	0.969	0.980
7	30	1.400	3.250	0.740	0.971	0.982
8	30	1.450	2.400	0.660	0.971	0.982
9	30	1.500	3.150	0.780	0.910	0.940
10	35	1.250	5.000	0.740	0.898	0.939
11	35	1.300	5.000	0.800	0.953	0.976
12	35	1.350	4.100	0.800	0.955	0.973
13	35	1.400	2.950	0.720	0.964	0.982
14	35	1.450	2.450	0.700	0.964	0.979
15	35	1.500	2.000	0.640	0.961	0.974
16	35	1.550	2.250	0.700	0.941	0.961
17	35	1.600	1.550	0.580	0.955	0.967
18	35	1.650	1.500	0.580	0.951	0.969
19	35	1.700	1.650	0.660	0.898	0.934
20	40	1.300	4.750	0.780	0.881	0.926
21	40	1.350	5.000	0.840	0.935	0.965
22	40	1.400	3.450	0.780	0.949	0.972
23	40	1.450	2.850	0.780	0.936	0.961
24	40	1.500	2.100	0.660	0.937	0.960
25	40	1.550	1.950	0.700	0.943	0.968
26	40	1.600	1.600	0.600	0.931	0.951
27	40	1.650	1.500	0.620	0.940	0.965
28	40	1.700	1.750	0.700	0.925	0.948
29	40	1.750	1.650	0.700	0.898	0.928
30	40	1.800	1.350	0.620	0.920	0.944
31	40	1.850	1.050	0.520	0.929	0.944
32	40	1.900	1.200	0.620	0.864	0.912
33	45	1.400	4.350	0.840	0.916	0.954
34	45	1.450	3.350	0.820	0.919	0.951
35	45	1.500	2.500	0.760	0.926	0.954
36	45	1.550	2.000	0.700	0.923	0.952
37	45	1.600	1.650	0.620	0.884	0.921
38	45	1.650	1.550	0.660	0.924	0.947
39	45	1.700	2.100	0.760	0.877	0.919
40	45	1.750	1.750	0.720	0.894	0.934
41	45	1.800	1.150	0.560	0.891	0.920

Fig.41

No.	θ [deg]	n_2/n_1	n_1H/λ	W/L	η min	η max
42	45	1.850	1.050	0.560	0.912	0.929
43	45	1.900	1.300	0.660	0.879	0.913
44	50	1.450	3.850	0.840	0.899	0.942
45	50	1.500	2.900	0.820	0.876	0.918
46	50	1.550	2.100	0.720	0.873	0.916
47	50	1.600	1.950	0.760	0.886	0.930
48	50	1.650	1.600	0.660	0.886	0.919
49	50	1.700	1.500	0.680	0.900	0.949
50	50	1.750	2.100	0.780	0.852	0.901
51	50	1.800	1.150	0.620	0.855	0.895
52	50	1.850	1.100	0.580	0.884	0.908
53	50	1.900	1.050	0.580	0.884	0.933
54	55	1.500	3.350	0.840	0.864	0.914
55	55	1.600	2.050	0.760	0.862	0.909
56	55	1.700	1.500	0.720	0.862	0.899

Fig.42

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η min	η max
1	25	1.200	4.950	0.640	0.965	0.981
2	25	1.250	4.750	0.720	0.977	0.990
3	30	1.200	5.000	0.640	0.904	0.941
4	30	1.250	5.000	0.740	0.964	0.983
5	30	1.300	4.350	0.760	0.975	0.988
6	30	1.350	3.400	0.720	0.977	0.989
7	30	1.400	2.550	0.640	0.972	0.985
8	30	1.450	2.400	0.660	0.971	0.982
9	30	1.500	4.900	0.220	0.939	0.976
10	35	1.300	5.000	0.800	0.953	0.976
11	35	1.350	3.900	0.780	0.961	0.979
12	35	1.400	2.950	0.720	0.964	0.982
13	35	1.450	2.450	0.700	0.964	0.979
14	35	1.500	2.000	0.640	0.961	0.974
15	35	1.550	1.950	0.640	0.955	0.977
16	35	1.600	1.550	0.580	0.955	0.967
17	35	1.650	1.500	0.580	0.951	0.969
18	35	1.700	3.100	0.260	0.913	0.955
19	40	1.350	4.650	0.820	0.935	0.967
20	40	1.400	3.450	0.780	0.949	0.972
21	40	1.450	2.900	0.760	0.951	0.980
22	40	1.500	2.400	0.740	0.947	0.977
23	40	1.550	1.950	0.700	0.943	0.968
24	40	1.600	1.600	0.600	0.931	0.951
25	40	1.650	1.500	0.620	0.940	0.965
26	40	1.700	1.450	0.620	0.934	0.971
27	40	1.750	1.400	0.620	0.927	0.965
28	40	1.800	1.350	0.620	0.920	0.944
29	40	1.850	1.050	0.520	0.929	0.944
30	45	1.400	4.400	0.840	0.919	0.958
31	45	1.450	3.400	0.820	0.919	0.957
32	45	1.500	2.500	0.760	0.926	0.954
33	45	1.550	2.000	0.700	0.923	0.952
34	45	1.600	2.950	0.820	0.901	0.944
35	45	1.650	1.550	0.660	0.924	0.947
36	45	1.850	1.050	0.560	0.912	0.929
37	50	1.500	2.900	0.800	0.901	0.948
38	50	1.600	1.950	0.740	0.901	0.946

Fig.43

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η min	η max
1	25	1.200	4.950	0.640	0.965	0.981
2	25	1.250	4.650	0.740	0.962	0.973
3	30	1.250	4.700	0.720	0.957	0.977
4	30	1.300	4.600	0.780	0.973	0.985
5	30	1.350	4.600	0.800	0.969	0.980
6	30	1.400	4.000	0.800	0.962	0.972
7	30	1.450	2.400	0.660	0.971	0.982
8	35	1.300	5.000	0.800	0.953	0.976
9	35	1.350	4.100	0.800	0.955	0.973
10	35	1.400	2.950	0.720	0.964	0.982
11	35	1.450	2.450	0.700	0.964	0.979
12	35	1.500	2.000	0.640	0.961	0.974
13	35	1.550	2.250	0.700	0.941	0.961
14	35	1.600	1.550	0.580	0.955	0.967
15	35	1.650	1.500	0.580	0.951	0.969
16	40	1.400	3.450	0.780	0.949	0.972
17	40	1.500	2.100	0.660	0.937	0.960
18	40	1.600	1.600	0.600	0.931	0.951
19	40	1.650	1.500	0.620	0.940	0.965
20	40	1.700	1.750	0.700	0.925	0.948
21	40	1.800	1.050	0.560	0.905	0.926
22	40	1.850	1.050	0.520	0.929	0.944
23	45	1.650	1.550	0.660	0.924	0.947
24	45	1.850	1.050	0.560	0.912	0.929

Fig.44

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η min	η max
1	25	1.200	4.800	0.620	0.965	0.979
2	25	1.250	4.750	0.720	0.982	0.990
3	30	1.200	4.850	0.620	0.904	0.933
4	30	1.250	4.700	0.720	0.962	0.977
5	30	1.300	4.350	0.760	0.978	0.988
6	30	1.350	4.600	0.800	0.973	0.980
7	30	1.400	4.000	0.800	0.964	0.971
8	30	1.450	2.400	0.660	0.973	0.982
9	30	1.500	3.150	0.780	0.915	0.940
10	35	1.250	5.000	0.740	0.907	0.939
11	35	1.300	5.000	0.800	0.960	0.976
12	35	1.350	3.900	0.780	0.966	0.979
13	35	1.400	2.950	0.740	0.958	0.972
14	35	1.450	3.600	0.800	0.954	0.966
15	35	1.500	2.000	0.640	0.964	0.973
16	35	1.550	2.250	0.700	0.944	0.959
17	35	1.600	1.550	0.580	0.957	0.966
18	35	1.650	1.500	0.580	0.954	0.969
19	35	1.700	1.650	0.660	0.905	0.931
20	40	1.300	4.750	0.780	0.892	0.926
21	40	1.350	5.000	0.840	0.943	0.965
22	40	1.400	3.450	0.780	0.955	0.972
23	40	1.450	2.850	0.780	0.940	0.960
24	40	1.500	2.100	0.660	0.941	0.959
25	40	1.550	1.950	0.700	0.945	0.967
26	40	1.600	1.600	0.600	0.934	0.949
27	40	1.650	1.500	0.620	0.943	0.964
28	40	1.700	1.750	0.700	0.927	0.945
29	40	1.750	1.650	0.700	0.902	0.925
30	40	1.800	1.350	0.620	0.923	0.941
31	40	1.850	1.050	0.520	0.931	0.943
32	40	1.900	1.200	0.600	0.865	0.901
33	45	1.350	4.750	0.820	0.882	0.923
34	45	1.400	4.350	0.840	0.927	0.954
35	45	1.450	3.350	0.820	0.927	0.950
36	45	1.500	2.500	0.760	0.932	0.953
37	45	1.550	2.050	0.720	0.926	0.948
38	45	1.600	1.650	0.620	0.890	0.917
39	45	1.650	1.550	0.660	0.928	0.945
40	45	1.700	2.100	0.760	0.883	0.915
41	45	1.750	1.750	0.720	0.899	0.931

Fig.45

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η min	η max
42	45	1.800	1.150	0.560	0.895	0.918
43	45	1.850	1.050	0.560	0.915	0.928
44	45	1.900	1.300	0.660	0.884	0.910
45	45	1.950	1.250	0.660	0.850	0.885
46	45	2.000	1.150	0.640	0.830	0.863
47	45	2.050	1.100	0.640	0.810	0.844
48	45	2.100	0.750	0.460	0.804	0.848
49	50	1.400	5.000	0.860	0.884	0.925
50	50	1.450	3.850	0.840	0.909	0.942
51	50	1.500	2.900	0.820	0.885	0.916
52	50	1.550	2.100	0.720	0.880	0.915
53	50	1.600	1.950	0.760	0.890	0.928
54	50	1.650	1.600	0.660	0.891	0.916
55	50	1.700	2.800	0.840	0.835	0.877
56	50	1.750	2.100	0.780	0.860	0.897
57	50	1.800	1.150	0.620	0.861	0.891
58	50	1.850	1.100	0.580	0.887	0.906
59	50	1.900	1.550	0.740	0.824	0.857
60	50	1.950	1.300	0.660	0.840	0.876
61	50	2.000	1.250	0.680	0.825	0.855
62	50	2.050	1.150	0.680	0.815	0.858
63	50	2.250	0.850	0.560	0.832	0.863
64	55	1.450	4.800	0.880	0.860	0.905
65	55	1.500	3.350	0.840	0.874	0.914
66	55	1.550	2.500	0.800	0.861	0.899
67	55	1.600	2.000	0.760	0.860	0.894
68	55	1.650	1.650	0.680	0.828	0.871
69	55	1.700	1.500	0.720	0.865	0.896
70	55	1.800	1.200	0.620	0.818	0.863
71	55	1.850	1.100	0.620	0.846	0.877
72	55	1.900	1.050	0.620	0.862	0.909
73	55	2.400	1.400	0.340	0.808	0.850
74	60	1.500	3.450	0.840	0.810	0.860
75	60	1.550	2.900	0.840	0.827	0.870
76	60	1.700	1.550	0.720	0.816	0.854
77	60	1.900	1.050	0.640	0.823	0.871

Fig.46

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η min	η max
1	25	1.200	4.800	0.620	0.965	0.979
2	25	1.250	4.750	0.720	0.982	0.990
3	30	1.200	5.000	0.640	0.910	0.940
4	30	1.250	4.700	0.720	0.962	0.977
5	30	1.300	4.350	0.760	0.978	0.988
6	30	1.350	4.600	0.800	0.973	0.980
7	30	1.400	3.250	0.740	0.973	0.982
8	30	1.450	2.400	0.660	0.973	0.982
9	30	1.500	3.150	0.780	0.915	0.940
10	35	1.250	5.000	0.740	0.907	0.939
11	35	1.300	5.000	0.800	0.960	0.976
12	35	1.350	3.900	0.780	0.966	0.979
13	35	1.400	2.950	0.740	0.958	0.972
14	35	1.450	2.450	0.700	0.967	0.978
15	35	1.500	2.000	0.640	0.964	0.973
16	35	1.550	2.250	0.700	0.944	0.959
17	35	1.600	1.550	0.580	0.957	0.966
18	35	1.650	1.500	0.580	0.954	0.969
19	35	1.700	1.650	0.660	0.905	0.931
20	40	1.300	4.750	0.780	0.892	0.926
21	40	1.350	5.000	0.840	0.943	0.965
22	40	1.400	3.450	0.780	0.955	0.972
23	40	1.450	2.850	0.780	0.940	0.960
24	40	1.500	2.100	0.660	0.941	0.959
25	40	1.550	1.950	0.700	0.945	0.967
26	40	1.600	1.600	0.600	0.934	0.949
27	40	1.650	1.500	0.620	0.943	0.964
28	40	1.700	1.750	0.700	0.927	0.945
29	40	1.750	1.650	0.700	0.902	0.925
30	40	1.800	1.350	0.620	0.923	0.941
31	40	1.850	1.050	0.520	0.931	0.943
32	40	1.900	1.000	0.520	0.913	0.952
33	45	1.350	4.750	0.820	0.882	0.923
34	45	1.400	4.350	0.840	0.927	0.954
35	45	1.450	3.350	0.820	0.927	0.950
36	45	1.500	2.500	0.760	0.932	0.953
37	45	1.550	2.000	0.700	0.928	0.950
38	45	1.600	2.950	0.820	0.907	0.941
39	45	1.650	1.550	0.660	0.928	0.945
40	45	1.700	2.100	0.760	0.883	0.915
41	45	1.750	1.750	0.720	0.899	0.931

Fig.47

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η min	η max
42	45	1.800	1.150	0.560	0.895	0.918
43	45	1.850	1.050	0.560	0.915	0.928
44	45	1.900	1.300	0.660	0.884	0.910
45	45	1.950	3.000	0.560	0.883	0.929
46	50	1.400	5.000	0.860	0.884	0.925
47	50	1.450	3.850	0.840	0.909	0.942
48	50	1.500	2.950	0.820	0.892	0.926
49	50	1.550	2.100	0.720	0.880	0.915
50	50	1.600	1.950	0.760	0.890	0.928
51	50	1.650	1.600	0.660	0.891	0.916
52	50	1.700	1.500	0.680	0.904	0.948
53	50	1.750	2.100	0.780	0.860	0.897
54	50	1.800	1.150	0.620	0.861	0.891
55	50	1.850	1.100	0.580	0.887	0.906
56	50	1.900	1.050	0.580	0.887	0.932
57	55	1.450	4.850	0.880	0.866	0.911
58	55	1.500	3.400	0.840	0.880	0.921
59	55	1.550	2.500	0.800	0.861	0.899
60	55	1.600	2.050	0.760	0.870	0.906
61	55	1.700	1.550	0.700	0.873	0.914
62	55	1.900	1.050	0.620	0.862	0.909

Fig.48

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η min	η max
1	25	1.200	4.950	0.640	0.966	0.980
2	25	1.250	4.800	0.720	0.983	0.991
3	30	1.200	5.000	0.640	0.910	0.940
4	30	1.250	4.950	0.740	0.966	0.980
5	30	1.300	4.400	0.760	0.980	0.990
6	30	1.350	3.400	0.720	0.979	0.989
7	30	1.400	2.550	0.640	0.975	0.985
8	30	1.450	2.400	0.660	0.973	0.982
9	30	1.500	4.900	0.220	0.945	0.976
10	35	1.250	5.000	0.740	0.907	0.939
11	35	1.300	5.000	0.800	0.960	0.976
12	35	1.350	3.900	0.780	0.966	0.979
13	35	1.400	2.950	0.720	0.967	0.982
14	35	1.450	2.450	0.700	0.967	0.978
15	35	1.500	2.000	0.640	0.964	0.973
16	35	1.550	1.950	0.640	0.958	0.977
17	35	1.600	1.550	0.580	0.957	0.966
18	35	1.650	1.500	0.580	0.954	0.969
19	35	1.700	1.400	0.580	0.929	0.962
20	40	1.350	5.000	0.840	0.943	0.965
21	40	1.400	3.450	0.780	0.955	0.972
22	40	1.450	2.900	0.760	0.955	0.980
23	40	1.500	2.400	0.740	0.950	0.977
24	40	1.550	1.950	0.700	0.945	0.967
25	40	1.600	1.600	0.600	0.934	0.949
26	40	1.650	1.500	0.620	0.943	0.964
27	40	1.700	1.450	0.620	0.937	0.971
28	40	1.750	1.400	0.620	0.930	0.964
29	40	1.800	1.350	0.620	0.923	0.941
30	40	1.850	1.050	0.520	0.931	0.943
31	40	1.900	1.000	0.520	0.913	0.952
32	45	1.400	4.400	0.840	0.930	0.958
33	45	1.450	3.350	0.820	0.927	0.950
34	45	1.500	2.500	0.760	0.932	0.953
35	45	1.550	2.000	0.700	0.928	0.950
36	45	1.600	2.950	0.820	0.907	0.941
37	45	1.650	1.550	0.660	0.928	0.945
38	45	1.700	1.500	0.660	0.918	0.966
39	45	1.750	2.600	0.380	0.912	0.962
40	45	1.850	1.050	0.560	0.915	0.928
41	45	1.900	1.050	0.560	0.903	0.945
42	50	1.450	3.850	0.840	0.909	0.942
43	50	1.500	2.900	0.800	0.908	0.948
44	50	1.550	2.400	0.780	0.908	0.952
45	50	1.600	1.950	0.740	0.906	0.945
46	50	1.700	1.500	0.680	0.904	0.948

Fig.49

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η min	η max
1	25	1.200	4.800	0.620	0.965	0.979
2	25	1.250	4.750	0.720	0.982	0.990
3	30	1.250	4.700	0.720	0.962	0.977
4	30	1.300	4.350	0.760	0.978	0.988
5	30	1.350	4.600	0.800	0.973	0.980
6	30	1.400	4.000	0.800	0.964	0.971
7	30	1.450	2.400	0.660	0.973	0.982
8	30	1.500	3.150	0.780	0.915	0.940
9	35	1.300	5.000	0.800	0.960	0.976
10	35	1.350	3.900	0.780	0.966	0.979
11	35	1.400	2.950	0.740	0.958	0.972
12	35	1.450	3.600	0.800	0.954	0.966
13	35	1.500	2.000	0.640	0.964	0.973
14	35	1.550	2.250	0.700	0.944	0.959
15	35	1.600	1.550	0.580	0.957	0.966
16	35	1.650	1.500	0.580	0.954	0.969
17	40	1.350	5.000	0.840	0.943	0.965
18	40	1.400	3.450	0.780	0.955	0.972
19	40	1.450	2.850	0.780	0.940	0.960
20	40	1.500	2.100	0.660	0.941	0.959
21	40	1.550	1.950	0.700	0.945	0.967
22	40	1.600	1.600	0.600	0.934	0.949
23	40	1.650	1.500	0.620	0.943	0.964
24	40	1.700	1.750	0.700	0.927	0.945
25	40	1.750	1.650	0.700	0.902	0.925
26	40	1.800	1.350	0.620	0.923	0.941
27	40	1.850	1.050	0.520	0.931	0.943
28	45	1.450	3.350	0.820	0.927	0.950
29	45	1.500	2.500	0.760	0.932	0.953
30	45	1.550	2.050	0.720	0.926	0.948
31	45	1.650	1.550	0.660	0.928	0.945
32	45	1.850	1.050	0.560	0.915	0.928

Fig.50

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η min	η max
1	25	1.200	4.950	0.640	0.962	0.981
2	25	1.250	4.650	0.740	0.960	0.973
3	30	1.200	5.000	0.640	0.899	0.942
4	30	1.250	5.000	0.740	0.961	0.983
5	30	1.300	4.600	0.780	0.972	0.985
6	30	1.350	4.600	0.800	0.966	0.980
7	30	1.400	4.000	0.800	0.960	0.972
8	30	1.450	2.400	0.660	0.969	0.982
9	30	1.500	4.850	0.880	0.884	0.917
10	35	1.250	5.000	0.740	0.890	0.939
11	35	1.300	5.000	0.800	0.947	0.976
12	35	1.350	4.100	0.800	0.951	0.973
13	35	1.400	2.950	0.720	0.962	0.982
14	35	1.450	2.450	0.700	0.962	0.979
15	35	1.500	2.000	0.640	0.959	0.974
16	35	1.550	2.250	0.700	0.939	0.962
17	35	1.600	1.550	0.580	0.953	0.967
18	35	1.650	1.500	0.580	0.948	0.969
19	35	1.700	2.150	0.760	0.858	0.891
20	40	1.350	4.650	0.820	0.930	0.967
21	40	1.400	3.450	0.780	0.944	0.972
22	40	1.450	2.850	0.780	0.932	0.962
23	40	1.500	2.100	0.660	0.934	0.961
24	40	1.550	1.950	0.700	0.940	0.968
25	40	1.600	1.600	0.600	0.928	0.952
26	40	1.650	1.500	0.620	0.938	0.965
27	40	1.700	1.750	0.700	0.922	0.949
28	40	1.750	1.100	0.580	0.875	0.908
29	40	1.800	1.050	0.560	0.903	0.928
30	40	1.850	1.050	0.520	0.927	0.945
31	45	1.400	4.350	0.840	0.907	0.954
32	45	1.450	3.350	0.820	0.912	0.951
33	45	1.500	2.500	0.760	0.921	0.955
34	45	1.550	2.000	0.700	0.920	0.952
35	45	1.600	1.650	0.620	0.880	0.923
36	45	1.650	1.550	0.660	0.920	0.948
37	45	1.700	3.800	0.900	0.803	0.847
38	45	1.750	1.150	0.620	0.849	0.893
39	45	1.800	1.050	0.600	0.865	0.898
40	45	1.850	1.050	0.560	0.909	0.930
41	45	1.900	1.300	0.660	0.875	0.915

Fig.51

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η min	η max
42	45	1.950	1.250	0.660	0.842	0.885
43	45	2.000	1.150	0.640	0.821	0.870
44	50	1.500	2.950	0.820	0.878	0.928
45	50	1.650	1.600	0.660	0.881	0.921
46	50	1.800	1.100	0.640	0.835	0.878
47	50	1.850	1.100	0.580	0.880	0.910
48	50	2.000	1.250	0.680	0.814	0.862
49	55	1.700	1.500	0.720	0.858	0.901

Fig.52

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η min	η max
1	25	1.200	4.950	0.640	0.962	0.981
2	25	1.250	4.650	0.740	0.960	0.973
3	30	1.200	5.000	0.640	0.899	0.942
4	30	1.250	5.000	0.740	0.961	0.983
5	30	1.300	4.600	0.780	0.972	0.985
6	30	1.350	4.600	0.800	0.966	0.980
7	30	1.400	4.000	0.800	0.960	0.972
8	30	1.450	2.400	0.660	0.969	0.982
9	30	1.500	3.150	0.780	0.907	0.940
10	35	1.250	5.000	0.740	0.890	0.939
11	35	1.300	5.000	0.800	0.947	0.976
12	35	1.350	4.100	0.800	0.951	0.973
13	35	1.400	2.950	0.720	0.962	0.982
14	35	1.450	2.450	0.700	0.962	0.979
15	35	1.500	2.000	0.640	0.959	0.974
16	35	1.550	2.250	0.700	0.939	0.962
17	35	1.600	1.550	0.580	0.953	0.967
18	35	1.650	1.500	0.580	0.948	0.969
19	35	1.700	1.650	0.660	0.893	0.937
20	40	1.350	4.650	0.820	0.930	0.967
21	40	1.400	3.450	0.780	0.944	0.972
22	40	1.450	2.850	0.780	0.932	0.962
23	40	1.500	2.100	0.660	0.934	0.961
24	40	1.550	1.950	0.700	0.940	0.968
25	40	1.600	1.600	0.600	0.928	0.952
26	40	1.650	1.500	0.620	0.938	0.965
27	40	1.700	1.750	0.700	0.922	0.949
28	40	1.750	1.650	0.700	0.895	0.930
29	40	1.800	1.350	0.620	0.917	0.945
30	40	1.850	1.050	0.520	0.927	0.945
31	45	1.400	4.350	0.840	0.907	0.954
32	45	1.450	3.350	0.820	0.912	0.951
33	45	1.500	2.500	0.760	0.921	0.955
34	45	1.550	2.000	0.700	0.920	0.952
35	45	1.600	1.650	0.620	0.880	0.923
36	45	1.650	1.550	0.660	0.920	0.948
37	45	1.700	2.100	0.760	0.872	0.921
38	45	1.750	1.750	0.720	0.889	0.936
39	45	1.800	1.150	0.560	0.887	0.921
40	45	1.850	1.050	0.560	0.909	0.930
41	45	1.900	1.300	0.660	0.875	0.915

Fig.53

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η min	η max
42	50	1.500	2.950	0.820	0.878	0.928
43	50	1.650	1.600	0.660	0.881	0.921
44	50	1.800	1.150	0.620	0.850	0.899
45	50	1.850	1.100	0.580	0.880	0.910
46	55	1.700	1.500	0.720	0.858	0.901

Fig.54

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η min	η max
1	25	1.200	4.950	0.640	0.962	0.981
2	25	1.250	4.800	0.740	0.971	0.987
3	30	1.250	5.000	0.740	0.961	0.983
4	30	1.300	4.600	0.780	0.972	0.985
5	30	1.350	3.400	0.720	0.975	0.989
6	30	1.400	2.550	0.640	0.970	0.985
7	30	1.450	2.400	0.660	0.969	0.982
8	30	1.500	2.600	0.720	0.918	0.959
9	35	1.300	5.000	0.800	0.947	0.976
10	35	1.350	3.900	0.780	0.957	0.979
11	35	1.400	2.950	0.720	0.962	0.982
12	35	1.450	2.450	0.700	0.962	0.979
13	35	1.500	2.000	0.640	0.959	0.974
14	35	1.550	1.950	0.640	0.953	0.977
15	35	1.600	1.550	0.580	0.953	0.967
16	35	1.650	1.500	0.580	0.948	0.969
17	35	1.700	3.100	0.260	0.907	0.955
18	40	1.350	4.650	0.820	0.930	0.967
19	40	1.400	3.450	0.780	0.944	0.972
20	40	1.450	2.900	0.780	0.935	0.968
21	40	1.500	2.400	0.740	0.944	0.977
22	40	1.550	1.950	0.700	0.940	0.968
23	40	1.600	1.600	0.600	0.928	0.952
24	40	1.650	1.500	0.620	0.938	0.965
25	40	1.700	1.750	0.700	0.922	0.949
26	40	1.750	1.400	0.620	0.924	0.966
27	40	1.800	1.350	0.620	0.917	0.945
28	40	1.850	1.050	0.520	0.927	0.945
29	45	1.400	4.350	0.840	0.907	0.954
30	45	1.450	3.200	0.800	0.915	0.958
31	45	1.500	2.500	0.760	0.921	0.955
32	45	1.550	2.000	0.700	0.920	0.952
33	45	1.650	1.550	0.660	0.920	0.948
34	45	1.850	1.050	0.560	0.909	0.930

Fig.55

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η min	η max
1	25	1.200	4.950	0.640	0.962	0.981
2	25	1.250	4.650	0.740	0.960	0.973
3	30	1.250	5.000	0.740	0.961	0.983
4	30	1.300	4.600	0.780	0.972	0.985
5	30	1.350	4.600	0.800	0.966	0.980
6	30	1.400	4.000	0.800	0.960	0.972
7	30	1.450	2.400	0.660	0.969	0.982
8	35	1.350	4.100	0.800	0.951	0.973
9	35	1.400	2.950	0.720	0.962	0.982
10	35	1.450	2.450	0.700	0.962	0.979
11	35	1.500	2.000	0.640	0.959	0.974
12	35	1.550	2.250	0.700	0.939	0.962
13	35	1.600	1.550	0.580	0.953	0.967
14	35	1.650	1.500	0.580	0.948	0.969
15	40	1.600	1.600	0.600	0.928	0.952
16	40	1.800	1.050	0.560	0.903	0.928
17	40	1.850	1.050	0.520	0.927	0.945
18	45	1.850	1.050	0.560	0.909	0.930

Fig.56

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η min	η max
1	25	1.200	5.000	0.640	0.951	0.984
2	25	1.250	4.700	0.740	0.953	0.978
3	30	1.250	4.700	0.720	0.934	0.977
4	30	1.300	4.650	0.780	0.962	0.987
5	30	1.350	3.250	0.700	0.966	0.985
6	30	1.400	2.500	0.640	0.960	0.983
7	30	1.450	2.700	0.700	0.947	0.976
8	30	1.500	4.850	0.880	0.875	0.917
9	35	1.350	3.800	0.760	0.945	0.983
10	35	1.400	3.150	0.760	0.944	0.976
11	35	1.450	2.450	0.700	0.951	0.979
12	35	1.500	2.000	0.640	0.949	0.975
13	35	1.550	1.950	0.640	0.941	0.977
14	35	1.600	1.550	0.580	0.946	0.968
15	35	1.650	1.750	0.660	0.919	0.956
16	35	1.700	2.450	0.800	0.827	0.868
17	40	1.450	2.750	0.740	0.930	0.977
18	40	1.500	2.400	0.740	0.930	0.977
19	40	1.550	1.950	0.700	0.928	0.969
20	40	1.600	1.600	0.600	0.916	0.956
21	40	1.650	1.500	0.620	0.927	0.965
22	40	1.700	1.750	0.700	0.908	0.954
23	40	1.750	2.350	0.820	0.825	0.873
24	40	1.800	1.100	0.540	0.905	0.942
25	40	1.850	1.050	0.520	0.906	0.947
26	45	1.650	1.550	0.640	0.907	0.952

Fig.57

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η min	η max
1	25	1.200	5.000	0.640	0.951	0.984
2	25	1.250	4.700	0.740	0.953	0.978
3	30	1.250	4.700	0.720	0.934	0.977
4	30	1.300	4.650	0.780	0.962	0.987
5	30	1.350	3.250	0.700	0.966	0.985
6	30	1.400	2.500	0.640	0.960	0.983
7	30	1.450	2.700	0.700	0.947	0.976
8	30	1.500	4.850	0.880	0.875	0.917
9	35	1.350	3.800	0.760	0.945	0.983
10	35	1.400	3.150	0.760	0.944	0.976
11	35	1.450	2.450	0.700	0.951	0.979
12	35	1.500	2.000	0.640	0.949	0.975
13	35	1.550	1.950	0.640	0.941	0.977
14	35	1.600	1.550	0.580	0.946	0.968
15	35	1.650	1.750	0.660	0.919	0.956
16	40	1.450	2.750	0.740	0.930	0.977
17	40	1.500	2.400	0.740	0.930	0.977
18	40	1.550	1.950	0.700	0.928	0.969
19	40	1.600	1.600	0.600	0.916	0.956
20	40	1.650	1.500	0.620	0.927	0.965
21	40	1.700	1.750	0.700	0.908	0.954
22	40	1.800	1.100	0.540	0.905	0.942
23	40	1.850	1.050	0.520	0.906	0.947
24	45	1.650	1.550	0.640	0.907	0.952

Fig.58

No.	θ[deg]	n_2/n_1	n_1H/λ	W/L	η min	η max
1	25	1.200	5.000	0.640	0.951	0.984
2	25	1.250	4.700	0.740	0.953	0.978
3	30	1.250	4.700	0.720	0.934	0.977
4	30	1.300	4.650	0.780	0.962	0.987
5	30	1.350	3.250	0.700	0.966	0.985
6	30	1.400	2.500	0.640	0.960	0.983
7	30	1.450	2.700	0.700	0.947	0.976
8	35	1.350	3.800	0.760	0.945	0.983
9	35	1.400	3.150	0.760	0.944	0.976
10	35	1.450	2.450	0.700	0.951	0.979
11	35	1.500	2.000	0.640	0.949	0.975
12	35	1.550	1.950	0.640	0.941	0.977
13	35	1.600	1.550	0.580	0.946	0.968
14	35	1.650	1.500	0.560	0.930	0.968
15	40	1.450	2.750	0.740	0.930	0.977
16	40	1.500	2.400	0.740	0.930	0.977
17	40	1.550	1.950	0.700	0.928	0.969
18	40	1.600	1.600	0.600	0.916	0.956
19	40	1.650	1.500	0.620	0.927	0.965
20	40	1.700	1.750	0.700	0.908	0.954
21	40	1.800	1.100	0.540	0.905	0.942
22	40	1.850	1.050	0.520	0.906	0.947
23	45	1.650	1.550	0.640	0.907	0.952

Fig.59

No.	θ [deg]	n_2/n_1	n_1H/λ	W/L	η min	η max
1	25	1.250	4.700	0.740	0.953	0.978
2	30	1.300	4.650	0.780	0.962	0.987
3	30	1.350	3.250	0.700	0.966	0.985
4	30	1.400	2.500	0.640	0.960	0.983
5	35	1.600	1.550	0.580	0.946	0.968